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Consult the Reader Aids section at the end of this page for phone numbers, online resources, finding aids, reminders, and notice of recently enacted public laws.

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A cumulative list of the parts affected this month can be found in the Reader Aids section at the end of this issue.

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Rules and Regulations

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This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.

The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each week.

DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

7 CFR Part 1207

[Doc. No. AMS–FV–09–0024; FV–09–706C]

Potato Research and Promotion Plan

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Correcting amendments.

SUMMARY: The Agricultural Marketing Service is making corrections to its Potato Research and Promotion plan regulations to reflect the modification of the Harmonized Tariff Schedule for imported potatoes by U.S. Customs and Border Protection (Customs). This document also corrects Customs' name within 7 CFR part 1207.

DATES: Effective March 26, 2010.

FOR FURTHER INFORMATION CONTACT: Deborah Simmons, Marketing Specialist, Research and Promotion Branch, Fruit and Vegetable Programs, AMS, USDA, 1400 Independence Avenue, SW., Room 0632, Stop 0244, Washington, DC 20250–0244; telephone: (202) 720–9915; or fax: (202) 205–2800; or e-mail: *Deborah.simmons@ams.usda.gov*.

SUPPLEMENTARY INFORMATION: This amendment corrects 7 CFR part 1207, section 1207.510 Levy of Assessments paragraphs (b)(1) to correct the name of U.S. Customs and Border Protection and update HTS codes in the table that appears in paragraph (b)(3).

List of Subjects in 7 CFR Part 1207

Administrative practice and procedure, Advertising, Consumer information, Marketing agreements, Potatoes, Promotion, Reporting and recordkeeping requirements.

■ Accordingly, 7 CFR part 1207 is amended by making the following correcting amendments:

PART 1207—POTATO RESEARCH AND PROMOTION PLAN

■ 1. The authority citation for 7 CFR part 1207 continues to read as follows:

Authority: 7 U.S.C. 2611–2627 and 7 U.S.C. 7401.

■ 2. Section 1207.510 is amended by revising paragraph (b)(1), and the table in paragraph (b)(3) to read as follows:

§ 1207.510 Levy of assessments.

* * * * *

(b) * * *

(1) An Assessment rate of 3 cents per hundredweight shall be levied on all tablestock potatoes imported into the United States for ultimate consumption by humans and all seed potatoes imported into the United States. An assessment rate of 3 cents per hundredweight shall be levied on the fresh weight equivalents of imported frozen or processed potatoes for ultimate consumption by humans. The importer of imported tablestock potatoes, potato products, or seed potatoes shall pay the assessment to the Board through the U.S. Customs and Border Protection at the time of entry or withdrawal for consumption of such potatoes and potato products into the United States.

* * * * *

(3) * * *

Tablestock potatoes, frozen or processed potatoes, and seed potatoes	Assessment	
	Cents/cwt	Cents/kg
0701.10.0020	3.0	0.066
0701.10.0040	3.0	0.066
0701.90.1000	3.0	0.066
0701.90.5015	3.0	0.066
0701.90.5025	3.0	0.066
0701.90.5035	3.0	0.066
0701.90.5045	3.0	0.066
0701.90.5055	3.0	0.066
0701.90.5065	3.0	0.066
0710.10.0000	6.0	0.132
2004.10.4000	6.0	0.132
2004.10.8020	6.0	0.132
2004.10.8040	6.0	0.132
2005.20.0070	4.716	0.104
0712.90.3000	21.429	0.472
1105.10.0000	21.429	0.472
1105.20.0000	21.429	0.472
2005.20.0040	21.429	0.472
2005.20.0020	12.240	0.27
1108.13.0010	27.0	0.595

* * * * *

Dated: March 16, 2010.

David R. Shipman,

Acting Administrator, Agricultural Marketing Service.

[FR Doc. 2010–6185 Filed 3–25–10; 8:45 am]

BILLING CODE 3410–02–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 73

[Docket No. FDA–2008–C–0098]

Listing of Color Additives Exempt From Certification; Bismuth Citrate

AGENCY: Food and Drug Administration, HHS.

ACTION: Final rule.

SUMMARY: The Food and Drug Administration (FDA) is amending the color additive regulations to increase the permitted use level of bismuth citrate as a color additive in cosmetics intended for coloring hair on the scalp. This action is in response to a petition filed by Combe, Inc.

DATES: This rule is effective April 27, 2010; except as to any provisions that may be stayed by the filing of proper objections. Submit electronic or written objections and requests for a hearing by April 26, 2010. See section VII of this document for information on the filing of objections.

ADDRESSES: You may submit written or electronic objections and requests for a hearing, identified by Docket No. FDA–2008–C–0098, by any of the following methods:

Electronic Submissions

Submit electronic objections in the following way:

- Federal eRulemaking Portal: *http://www.regulations.gov*. Follow the instructions for submitting comments.

Written Submissions

Submit written objections in the following ways:

- FAX: 301–827–6870.
- Mail/Hand delivery/Courier [For paper, disk, or CD–ROM submissions]: Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852.

Instructions: All submissions received must include the agency name and

docket number for this rulemaking. All objections received will be posted without change to *http://www.regulations.gov*, including any personal information provided. For detailed instructions on submitting objections, see the "Objections" heading of the **SUPPLEMENTARY INFORMATION** section of this document.

Docket: For access to the docket to read background documents or objections received, go to *http://www.regulations.gov* and insert the docket number, found in brackets in the heading of this document, into the "Search" box and follow the prompts and/or go to the Division of Dockets Management, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852.

FOR FURTHER INFORMATION CONTACT: Felicia M. Ellison, Center for Food Safety and Applied Nutrition (HFS–265), Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740–3835, 301–436–1264.

SUPPLEMENTARY INFORMATION:

I. Background

In a notice published in the **Federal Register** of February 25, 2008 (73 FR 10035), FDA announced that a color additive petition (CAP 8C0286) had been filed by Combe, Inc., c/o EAS Consulting Group, LLC, 1940 Duke St., suite 200, Alexandria, VA 22314. The petition proposed to amend the color additive regulations in § 73.2110 *Bismuth citrate* (21 CFR 73.2110) by increasing the maximum permitted use level of bismuth citrate as a color additive in cosmetics intended for coloring hair on the scalp from 0.5 percent (weight per volume (w/v)) to 2.0 percent (w/v).

II. Evaluation of Safety

A. Determination of Safety

Under section 721(b)(4) of the Federal Food, Drug, and Cosmetic Act (the act) (21 U.S.C. 379e(b)(4)), a color additive may not be listed for a particular use unless a fair evaluation of the data and information available to FDA establishes that the color additive is safe for that use. FDA's color additive regulations at § 70.3(i) (21 CFR 70.3(i)) define safe as the existence of "convincing evidence that establishes with reasonable certainty that no harm will result from the intended use of the color additive."

B. Safety of the Petitioned Use of the Color Additive

The petition proposes to increase the level of bismuth citrate in cosmetics intended for coloring scalp hair to 2.0 percent (w/v) with no changes to the identity or to the specifications of the color additive listed in § 73.2110. Consequently, the agency's current review focused on whether there are any safety concerns from the proposed increased use level of the color additive.

To assess the safety from use of bismuth citrate at a level of 2.0 percent (w/v) in cosmetic hair coloring products, FDA estimated the potential exposure to the color additive based on conservative assumptions. Directions on a sample label for a hair coloring product containing the color additive recommend that the product be applied daily until the hair reaches the desired color (estimated by the petitioner to be 2 to 3 weeks), followed by a maintenance regimen where the product is applied several times a week. The petitioner contends that the maintenance regimen is most representative of long-term use of bismuth citrate for coloring hair. FDA agrees with the petitioner and used the maintenance regimen to estimate chronic exposure to the color additive. Information in the petition indicates that 10 milliliters of the hair cosmetic product applied three times per week represents the maximum recommended use for the maintenance regimen. Of the amount applied, 2.0 percent of the hair coloring product is expected to reach the scalp and of that, 2.71 percent of the product is expected to be absorbed through the skin, resulting in an estimated potential exposure to the color additive of 46.5 micrograms per person per day (Ref. 1).

To show that the requested increased use level of bismuth citrate would be safe, the petitioner provided results from a 90-day oral toxicity study on bismuth citrate in rats, genotoxicity studies, dermal penetration studies, and dermal photosensitization studies. The dermal penetration studies showed no evidence of detectable systemic absorption of bismuth citrate, and the in vitro (pig skin) dermal penetration study revealed only minimal (2.71 percent) absorption in the epidermis. Neither study showed any evidence that bismuth citrate was a dermal- or photo-sensitizer. The 90-day oral feeding study showed no evidence of toxicity at 30 milligrams per kilogram body weight per day, which is more than 38,000 times greater than the estimated level of exposure (Ref. 2). Based on the totality of data and information submitted by the petitioner, FDA concludes that the expected exposure to the color additive from the proposed increased use level is safe.

III. Conclusion

FDA reviewed data in the petition and other available relevant material to evaluate the safety of the use of bismuth citrate as a color additive in cosmetics intended for coloring hair on the scalp. Based on this information, the agency concludes that the proposed increased use level of the color additive is safe and that the color additive will achieve its intended technical effect. Therefore, the regulations in part 73 (21 CFR part 73) should be amended as set forth in this document. In addition, based upon the factors listed in § 71.20(b) (21 CFR 71.20(b)), the agency concludes that certification of bismuth citrate is not necessary for the protection of the public health.

IV. Public Disclosure

In accordance with § 71.15 (21 CFR 71.15), the petition and the documents that FDA considered and relied upon in reaching its decision to approve the petition will be made available for inspection at the Center for Food Safety and Applied Nutrition by appointment with the information contact person listed above (see **FOR FURTHER INFORMATION CONTACT**). As provided in § 71.15, the agency will delete from the documents any materials that are not available for public disclosure before making the documents available for inspection.

V. Environmental Impact

The agency has carefully considered the potential environmental effects of this action. FDA has concluded that the action will not have a significant impact on the human environment, and that an environmental impact statement is not required. The agency's finding of no significant impact and the evidence supporting that finding, contained in an environmental assessment, may be seen in the Division of Dockets Management (see **ADDRESSES**) between 9 a.m. and 4 p.m., Monday through Friday.

VI. Paperwork Reduction Act of 1995

This final rule contains no collection of information. Therefore, clearance by the Office of Management and Budget under the Paperwork Reduction Act of 1995 is not required.

VII. Objections

This rule is effective as shown in the **DATES** section of this document, except as to any provisions that may be stayed by the filing of proper objections. Any person who will be adversely affected by this regulation may at any time file with the Division of Dockets Management (see **ADDRESSES**) electronic or written objections. Each objection shall be separately numbered, and each numbered objection shall specify with particularity the provisions of the

regulation to which objection is made and the grounds for the objection. Each numbered objection on which a hearing is requested shall specifically so state. Failure to request a hearing for any particular objection shall constitute a waiver of the right to a hearing on that objection. Each numbered objection for which a hearing is requested shall include a detailed description and analysis of the specific factual information intended to be presented in support of the objection in the event that a hearing is held. Failure to include such a description and analysis for any particular objection shall constitute a waiver of the right to a hearing on the objection. Three copies of all documents are to be submitted and are to be identified with the docket number found in brackets in the heading of this document. Any objections received in response to the regulation may be seen in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday. FDA will publish notice of the objections that the agency has received or lack thereof in the **Federal Register**.

VIII. References

The following references have been placed on display in the Division of Dockets Management (see **ADDRESSES**) and may be seen by interested persons between 9 a.m. and 4 p.m., Monday through Friday.

1. Memorandum from D. Folmer, Division of Petition Review, to F. Ellison, Division of Petition Review, January 30, 2009.

2. Memorandum from A. Khan, Division of Petition Review, to F. Ellison, Division of Petition Review, April 23, 2009.

List of Subjects in 21 CFR Part 73

Color additives, Cosmetics, Drugs, Medical devices.

■ Therefore, under the Federal Food, Drug, and Cosmetic Act and under authority delegated to the Commissioner of Food and Drugs and redelegated to the Director, Center for Food Safety and Applied Nutrition, 21 CFR part 73 is amended as follows:

PART 73—LISTING OF COLOR ADDITIVES EXEMPT FROM CERTIFICATION

■ 1. The authority citation for 21 CFR part 73 continues to read as follows:

Authority: 21 U.S.C. 321, 341, 342, 343, 348, 351, 352, 355, 361, 362, 371, 379e.

■ 2. Section 73.2110 is amended by revising paragraph (c)(1) to read as follows:

§ 73.2110 Bismuth citrate.

* * * * *

(c) * * *

(1) The amount of bismuth citrate in the cosmetic shall not be in excess of 2.0 percent (w/v).

* * * * *

Dated: March 17, 2010.

Leslye M. Fraser,

Director, Office of Regulations, Policy and Social Sciences, Center for Food Safety and Applied Nutrition.

[FR Doc. 2010–6731 Filed 3–25–10; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket No. USCG–2010–0002]

RIN 1625–AA00

Safety Zone; Dive Platform, Pago Pago Harbor, American Samoa

AGENCY: Coast Guard, DHS.

ACTION: Temporary final rule.

SUMMARY: The Coast Guard is establishing a temporary safety zone around the USNS Sioux or M/V EL LOBO GRANDE II dive platform and the 332-foot Tanker Barge CAPELLA while they are performing operations in and around the CHEHALIS wreck. The safety zone is necessary to protect other vessels and the general public from hazards associated with pre-staging vessels and dive operations. Entry into or remaining in the safety zone during the effective period is prohibited unless authorized by the Captain of the Port Honolulu.

DATES: This rule is effective from 6 a.m. on March 25, 2010 through 8 p.m. on April 17, 2010.

ADDRESSES: Comments and material received from the public, as well as documents mentioned in this preamble as being available in the docket, are part of docket USCG–2010–0002 and are available online by going to *http://www.regulations.gov,* inserting USCG–2010–0002 in the "Keyword" box, and then clicking "Search." This material is also available for inspection or copying at 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.

FOR FURTHER INFORMATION CONTACT: If you have questions on this rule, call or e-mail Lieutenant Commander Marcella Granquist, Waterways Management Division, U.S. Coast Guard Sector Honolulu, telephone 808–842–2600, e-mail *Marcella.A.Granquist@uscg.mil.* 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:

Regulatory Information

On February 5, 2010, we published a notice of proposed rulemaking (NPRM) entitled Safety Zone; Dive Platform, Pago Pago Harbor, American Samoa in the **Federal Register** (75 FR 5907). We received no comments and no public meeting was requested or held.

Under 5 U.S.C. 553(d)(3), the Coast Guard finds that good cause exists for making this rule effective less than 30 days after publication in the **Federal Register**. Making this safety zone effective March 25, 2010 is essential to protect the public from the hazards associated with pre-staging large vessels for the planned diving operations in and around the CHEHALIS wreck.

Background and Purpose

On October 7, 1949 the 4,130-ton gasoline tanker CHEHALIS sank in Pago Pago Inner Harbor, in an estimated 160 feet of water, approximately 350-feet from the fuel dock located near Goat Island Point, Pago Pago, American Samoa. From April 23, 2009 to May 10, 2009, the U.S. Coast Guard performed dive operations on the CHEHALIS wreck to determine the wreck's potential pollution threat to the environment. In December 2009, the U.S. Coast Guard planned dive operations to mitigate the wreck's potential pollution threat with pre-staging vessels beginning March 25, 2010 and conducting diving operations from March 27, 2010 to April 17, 2010.

Discussion of Comments and Changes

No comments were received and no public meeting was held. Two changes from the proposed temporary rule to the final temporary rule are necessary to enact the safety zone during the pre-staging of the dive platform and associated 332-foot Tank Barge starting on March 25, 2010 to ensure dive operations finish by April 17, 2010. First, we are changing the effective date of the regulation to March 25, 2010 instead of March 29, 2010. Second, we are slightly enlarging the area of the safety zone to accommodate both the dive platform and the Tank Barge, from a proposed 200-foot radius to an area approximately 600 by 300 feet. We note

that vessels will still be able to transit around the enlarged safety zone.

Regulatory Analyses

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

Regulatory Planning and Review

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.

Vessels will be able to transit around the zone. The Sector Honolulu Captain of the Port will allow vessels in the zone on a case-by-case basis.

Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601–612), we have considered whether this 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 would not have a significant economic impact on a substantial number of small entities since vessels will be allowed to transit around temporary Safety Zone north of the fuel dock in Pago Pago Inner Harbor, American Samoa. 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), in the NPRM we offered to assist small entities in understanding this rule so that they could better evaluate its effects on them and participate in the rulemaking process.

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

Collection of Information

This 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 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 cause 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 does 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 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 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 Department of Homeland Security Management Directive 023–01 and Commandant Instruction M16475.lD, which guide 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 one of a category of actions which do not individually or cumulatively have a significant effect on the human environment. This rule is categorically excluded, under figure 2–1, paragraph (34)(g), of the Instruction. This rule involves the creation of a temporary safety zone. An environmental analysis checklist and a categorical exclusion determination are available in the docket where indicated under **ADDRESSES**.

List of Subjects in 33 CFR Part 165

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

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

PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

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

Authority: 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.T14–199 to read as follows:

§ 165.T14–199 Safety Zone; Dive Platform Vessel, Pago Pago Harbor, American Samoa.

(a) *Location.* The following area is a temporary safety zone: All waters contained around the USNS Sioux or M/V EL LOBO GRANDE II dive platform and the 332-foot Tanker Barge CAPELLA while they are performing operations in and around the CHEHALIS wreck in Pago Pago Harbor, American Samoa. This safety zone is in the rough shape of a box 600 feet east/west and 300 feet north/south bounded by the points: 14°16′36″ S, 170°40′51″ W; 14°16′24″ S, 170°40′51″ W; 14°16′27″ S, 170°40′48″ W, 14°16′88″ S, 170°41′67″ W, and 14°16′34″ S, 170°40′56″ W. This safety zone extends from the surface of the water to the ocean floor. These coordinates are based upon the National Oceanic and Atmospheric Administration Coast Survey, Pacific Ocean, Samoa Islands, chart 83484.

(b) *Effective period.* This rule is effective from 6 a.m. on March 25, 2010 through 8 p.m. on April 17, 2010.

(c) *Regulations.* (1) Except for persons or vessels described in paragraph (c)(3) of this section, in accordance with the general regulations in 33 CFR part 165, Subpart C, entry into or remaining in the safety zone described in paragraph (a) of this section is prohibited.

(2) Persons desiring to transit the area of the safety zone may contact the Captain of the Port at telephone number 1–684–633–2299, the dive platform vessel on VHF channel 16 (156.800 MHz), or at telephone number 1–808–842–2600, to seek permission to transit the area. If permission is granted, all persons and vessels must comply with the instructions of the Captain of the Port or his designated representative.

(3) No person or vessel may enter or remain in the zone except for support vessels/aircraft and support personnel, or other vessels authorized by the Captain of the Port or his designated representatives.

(e) *Penalties.* Vessels or persons violating this rule would be subject to the penalties set forth in 33 U.S.C. 1232 and 50 U.S.C. 192.

Dated: March 10, 2010.

B.A. Compagnoni,

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

[FR Doc. 2010–6693 Filed 3–25–10; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF AGRICULTURE

Forest Service

36 CFR Part 251

Correcting Amendments

AGENCY: Forest Service, USDA.

ACTION: Correcting amendments.

SUMMARY: This document contains corrections to the final rule governing the Forest Service's Special Use Program that was published in the **Federal Register** on December 24, 2009 (74 FR 68379). These corrections add phrases which were inadvertently omitted from the final rule and which are necessary to reflect properly the Forest Service's authority to revoke or suspend special use authorizations under the Federal Land Policy and Management Act.

DATES: Effective on March 26, 2010.

FOR FURTHER INFORMATION CONTACT: Julett Denton, Lands Special Uses Program Manager, (202) 205–1256.

SUPPLEMENTARY INFORMATION: In 36 CFR 251.60(a)(2)(i) and (ii), governing revocation and suspension of special use authorizations, the phrase "§ 251.53(e) and (1)" is replaced with "§ 251.53(e) or an easement issued under § 251.53(l)." In 36 CFR 251.60(g), also governing revocation and suspension of special use authorizations, "§ 251.53(e) and (l)" is replaced with "§ 251.53(e) or easements issued under § 251.53(l)." These corrections are necessary to continue to reflect that only revocation or suspension of an easement, not a permit, is subject to formal administrative proceedings under the Federal Land Policy and Management Act.

List of Subjects in 36 CFR Part 251

Administrative practice and procedure, Electric power, National forests, Public lands—rights-of-way, Reporting and recordkeeping requirements, Water resources.

■ Accordingly, 36 CFR part 251 is corrected to read as follows:

PART 251—LAND USES

Subpart B—Special Uses

■ 1. The authority citation for part 251 continues to read as follow:

Authority: 7 U.S.C. 1011; 16 U.S.C. 518, 551, 678a; Pub. L. 76–867, 54 Stat. 1197.

■ 2. In § 251.60, revise paragraphs (a)(2)(i), (a)(2)(ii), and (g) to read as follows:

* * * * *

§ 251.60 Termination, revocation, and suspension.

(a) * * *

(2) *All other special uses*—(i) *Revocation or suspension.* An authorized officer may revoke or suspend a special use authorization for all other special uses, except a permit or an easement issued pursuant to § 251.53(e) or an easement issued under § 251.53(l) of this subpart:

(ii) *Administrative review.* Except for revocation or suspension of a permit or an easement issued pursuant to § 251.53(e) or an easement issued under § 251.53(l) of this subpart, suspension or revocation of a special use authorization under this paragraph is subject to administrative appeal in accordance with 36 CFR part 251, subpart C, of this chapter.

* * * * *

(g) The authorized officer may suspend or revoke permits or easements issued under § 251.53(e) or easements issued under § 251.53(l) of this subpart under the Rules of Practice Governing Formal Adjudicatory Administrative Proceedings instituted by the Secretary under 7 CFR 1.130 through 1.151.

Dated: March 20, 2010.

Hank Kashdan,

Associate Chief.

[FR Doc. 2010–6630 Filed 3–25–10; 8:45 am]

BILLING CODE 3410–11–P

DEPARTMENT OF COMMERCE

48 CFR Part 1352

[Document Number: 080730954–0129–03]

RIN 0605–AA26

Commerce Acquisition Regulation (CAR); Correction

AGENCY: Department of Commerce (DOC).

ACTION: Final rule; correction.

SUMMARY: We, the Department of Commerce, issue a final rule to bring the Commerce Acquisition Regulation in alignment with the Federal Acquisition Regulation (FAR) and to streamline DOC's internal policy and guidance.

DATES: This rule is effective April 7, 2010.

ADDRESSES: The final rule is available on the DOC Web site *http://www.doc.gov*, or *http://www.regulations.gov*, or by contacting the Department of Commerce: Room 1854, 1401 Constitution Avenue, NW., Washington, DC 20230.

FOR FURTHER INFORMATION CONTACT: Virna Evans, 202–482–3483.

SUPPLEMENTARY INFORMATION: On March 8, 2010, the Department of Commerce published a final rule to amend the CAR to update the regulations since its last revision on September 12, 1995. That rule updated the CAR to bring it into alignment with the current provisions of the FAR and added numerous new clauses that correspond to the new procedural requirements added to the CAR. For a detailed description of the changes by CAR Part, see the final rule published on March 8, 2010 in the **Federal Register** (75 FR 10568). The document is also available at *http://www.Regulations.gov* under Docket Number: DOC–2009–0003–0001.

Upon publication of the regulations, the Department identified a typographical error in the clause headings that appear in subpart 1352.2. In each clause heading, the Department included a reference to "DATE" to serve as a placeholder for the month and year when the rule is published so that each clause may have a reference point. However, this placeholder was not updated before the final rule was published. This final rule corrects this typographical error by adding to each clause heading the month and year when the clause is effective, which is April 2010. This amendment is a purely technical, non-substantive change to the regulations. No aspect of this action is controversial.

Classification

Executive Order 12866: This rule has been determined to be not significant for purposes of Executive Order 12866, Regulatory Planning and Review.

Administrative Procedure Act/Regulatory Flexibility Act: Pursuant to 5 U.S.C. 553(b)(B), the Department finds good cause to waive prior notice and opportunity for public comment otherwise required by the section because it is unnecessary. The Department takes this action to correct an error in the headings that appear for each clause in subpart 1352.2. In the final rule published on March 8, 2010, the Department included a reference to "DATE" in each clause heading in subpart 1352 to serve as a placeholder for the month and year when the rule is published so that each clause may have a reference point. This placeholder was inadvertently retained rather than updated with the month and year of the final rule when the rule becomes effective. This final rule corrects this typographical error by adding the month and year when the rule is to become effective, which is April 2010. This amendment is a purely technical, non-substantive change to the regulations. No aspect of this action is controversial. This rule does not change any procurement practices or procedures made by the March 8, 2010 rule. The error should be corrected immediately to eliminate potential confusion by the regulated public.

For the reasons stated above, the Department finds good cause under 5 U.S.C. 553(d)(3) to waive the 30-day delay in effective date.

Because prior notice and opportunity for public comment are not required for this rule by 5 U.S.C. 553, or any other law, the analytical requirements of the Regulatory Flexibility Act, 5 U.S.C. 601 *et seq.,* do not apply.

Paperwork Reduction Act: This rule does not impose any new information collections subject to review and approval by OMB under the Paperwork Reduction Act. Notwithstanding any other provision of the law, 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 PRA, unless that collection of information displays a currently valid OMB control number.

In FR Doc. 2010–4132 appearing on page 10568 in the **Federal Register** of Monday, March 8, 2010, the following corrections are made:

PART 1352—[CORRECTED]

■ On pages 10594 through 10616, in part 1352, correct the clause heading of each section by revising each reference to "(DATE)" to read "(APR 2010)".

Dated: March 17, 2010.

Scott Quehl,

Assistant Secretary for Administration.

[FR Doc. 2010–6730 Filed 3–25–10; 8:45 am]

BILLING CODE P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R6–ES–2010–0021; 92220–1113–0000; C6]

RIN 1018–AW97

Endangered and Threatened Wildlife and Plants; Reinstatement of Protections for the Grizzly Bear in the Greater Yellowstone Ecosystem in Compliance With Court Order

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service) are issuing this final rule to comply with a court order that has the effect of reinstating the regulatory protections under the Endangered Species Act of 1973 (ESA), as amended, for the grizzly bear (*Ursus arctos horribilis*) in the Greater Yellowstone Area (GYA) and surrounding area. This rule corrects the grizzly bear listing to reinstate the listing of grizzly bears in the GYA. This final rule also takes administrative action to correct two associated special rules.

DATES: This action is effective March 26, 2010. However, the court order had legal effect immediately upon being filed on September 21, 2009.

FOR FURTHER INFORMATION CONTACT: Dr. Christopher Servheen, Grizzly Bear Recovery Coordinator, U.S. Fish and Wildlife Service, at our Missoula office (*see* **ADDRESSES** above) or telephone (406) 243–4903. Individuals who are hearing-impaired or speech-impaired may call the Federal Relay Service at (800) 877–8337 for TTY assistance.

SUPPLEMENTARY INFORMATION:

Background

On March 29, 2007, we announced the establishment of a distinct population segment (DPS) of the grizzly bear (*Ursus arctos horribilis*) for the

GYA and surrounding area and removed this DPS from the List of Threatened and Endangered Wildlife (72 FR 14866). In that rule, we determined that the Yellowstone grizzly bear population was no longer an endangered or threatened population pursuant to the ESA (16 U.S.C. 1531 *et seq.*), based on the best scientific and commercial data available. Robust population growth, coupled with State and Federal cooperation to manage mortality and habitat, widespread public support for grizzly bear recovery, and the development of regulatory mechanisms, brought the Yellowstone grizzly bear population to the point where making a change to its status was appropriate.

Subsequently, three lawsuits challenging our decision were filed in Federal courts in Boise, Idaho, and in Missoula, Montana. Legal briefings in these cases were completed in 2008.

In the Montana case, the plaintiff presented four claims including: (1) The regulatory mechanisms to protect the grizzly once it is delisted are inadequate; (2) the Service did not adequately consider the impacts of global warming and other factors on whitebark pine nuts, a grizzly food source; (3) the population is unacceptably small and dependent on translocation of outside animals for genetic diversity; and (4) the Service did not properly consider whether the grizzlies were recovered across a significant portion of their range.

On September 21, 2009, the Montana District Court issued an order in which plaintiffs prevailed on the first and second counts, while the United States prevailed on the third and fourth counts. The court's order vacated the delisting and remanded it to the Service. Thus, this final rule is required to correct the Yellowstone grizzly bear population's listing status.

The United States is considering whether to appeal this decision. Regardless, this final rule is necessary because this process, should we move forward with an appeal, would likely take several years to complete.

The grizzly bear is a member of the brown bear species (*U. arctos*) that occurs in North America, Europe, and Asia; the subspecies *U. a. horribilis* is limited to North America (Rausch 1963, p. 43; Servheen 1999, pp. 50–53). The original 1975 grizzly bear listing (40 FR 31734–31736, July 28, 1975) established the listed entity as *U. a. horribilis.* However, the entry for grizzly bear in the List of Endangered and Threatened Wildlife at 50 CFR 17.11(h) was later modified inadvertently to *U. arctos* with a historic holarctic range. We corrected the listed entity back to its original form in the March 29, 2007, final rule (72 FR 14866), which again set forth the listed entity as *U. arctos horribilis* with a historic range of North America. With this final rule, we make this same correction to the special regulations found at 50 CFR 17.40(b) and 17.84(l).

Administrative Procedure

This rulemaking is necessary to comply with the September 21, 2009, court order. Therefore, under these circumstances, the Director has determined, pursuant to 5 U.S.C. 553(b), that prior notice and opportunity for public comment are impractical and unnecessary. The Director has further determined, pursuant to 5 U.S.C. 553(d), that the agency has good cause to make this rule effective upon publication.

Effects of the Rule

As of the filing of the respective court order, any and all grizzly bears in the GYA are listed as a threatened species under the ESA. Because the Court vacated the entire delisting rule and remanded it to the Service, there is no longer a GYA grizzly bear DPS. Thus, all grizzly bears in the lower 48 States are again listed as threatened (50 CFR 17.11(h)). An existing 4(d) rule again applies to this population (50 CFR 17.40(b)).

This rule will not affect the grizzly bear's Appendix II status under the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES).

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

■ Accordingly, in order to comply with the court orders discussed above, we 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; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

■ 2. Amend § 17.11 by revising the entry in the table at paragraph (h) for "Bear, grizzly" as follows:

§ 17.11 [Amended]

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
Mammals							
*	*	*	*	*	*		*
Bear, grizzly	*Ursus arctos horribilis.*	North America	U.S.A., conterminous (lower 48) States, except where listed as an experimental population.	T	1, 2D, 9, 759	NA	17.40(b)
Do	do	do	U.S.A. (portions of ID and MT, see 17.84(l)).	XN	706	NA	17.84(l)

* * * * *

§ 17.40 [Amended]

■ 3. Amend § 17.40 by adding the word "horribilis" after the word "arctos" in paragraph (b) heading and in the definition of "Grizzly bear" in paragraph (b)(2).

§ 17.84 [Amended]

■ 4. Amend § 17.84 by adding the word "horribilis" after the word "arctos" in paragraph (l) heading.

Dated: March 9, 2010.

Daniel M. Ashe,

Acting Director, U.S. Fish and Wildlife Service.

[FR Doc. 2010–6802 Filed 3–25–10; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 679

[Docket No. 0910131362–0087–02]

RIN 0648–XV51

Fisheries of the Exclusive Economic Zone Off Alaska; Pollock in the West Yakutat District of the Gulf of Alaska

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

ACTION: Temporary rule; closure.

SUMMARY: NMFS is prohibiting directed fishing for pollock in the West Yakutat District of the Gulf of Alaska (GOA). This action is necessary to prevent exceeding the 2010 total allowable catch (TAC) of pollock in the West Yakutat District of the GOA.

DATES: Effective 1200 hrs, Alaska local time (A.l.t.), March 23, 2010, through 2400 hrs, A.l.t., December 31, 2010.

FOR FURTHER INFORMATION CONTACT: Mary Furuness, 907–586–7228.

SUPPLEMENTARY INFORMATION: NMFS manages the groundfish fishery in the GOA exclusive economic zone according to the Fishery Management Plan for Groundfish of the Gulf of Alaska (FMP) prepared by the North Pacific Fishery Management Council under authority of the Magnuson-Stevens Fishery Conservation and Management Act. Regulations governing fishing by U.S. vessels in accordance with the FMP appear at subpart H of 50 CFR part 600 and 50 CFR part 679.

The 2010 TAC of pollock in the West Yakutat District of the GOA is 2,031 metric tons (mt) as established by the final 2010 and 2011 harvest specifications for groundfish of the GOA (75 FR 11749, March 12, 2010).

In accordance with § 679.20(d)(1)(i), the Regional Administrator has determined that the 2010 TAC of pollock in the West Yakutat District of the GOA will soon be reached. Therefore, the Regional Administrator is establishing a directed fishing allowance of 2,011mt, and is setting aside the remaining 20 mt as bycatch to support other anticipated groundfish fisheries. In accordance with § 679.20(d)(1)(iii), the Regional Administrator finds that this directed fishing allowance has been reached. Consequently, NMFS is prohibiting directed fishing for pollock in the West Yakutat District of the GOA.

After the effective date of this closure the maximum retainable amounts at § 679.20(e) and (f) apply at any time during a trip.

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 requirement is impracticable and contrary to the public interest. This requirement is impracticable and contrary to the public interest as it would prevent NMFS from responding to the most recent fisheries data in a timely fashion and would delay the closure of pollock in the West Yakutat District of the GOA. NMFS was unable to publish a notice providing time for public comment because the most recent, relevant data only became available as of March 22, 2010.

The AA also finds good cause to waive the 30–day delay in the effective date of this action under 5 U.S.C. 553(d)(3). This finding is based upon the reasons provided above for waiver of prior notice and opportunity for public comment.

This action is required by § 679.20 and is exempt from review under Executive Order 12866.

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

Dated: March 23, 2010.

Emily H. Menashes,

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

[FR Doc. 2010–6754 Filed 3–23–10; 4:15 pm]

BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 679

[Docket No. 0910131363–0087–02]

RIN 0648–XV52

Fisheries of the Exclusive Economic Zone Off Alaska; Atka Mackerel in the Bering Sea and Aleutian Islands Management Area

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

ACTION: Temporary rule; closure.

SUMMARY: NMFS is prohibiting directed fishing for Atka mackerel in the Central Aleutian District of the Bering Sea and Aleutian Islands management area (BSAI) by vessels participating in the Amendment 80 limited access fishery. This action is necessary to prevent exceeding the 2010 A season allocation of Atka mackerel in this area allocated to vessels participating in the Amendment 80 limited access fishery.

DATES: Effective 1200 hrs, Alaska local time (A.l.t.), March 23, 2010, through 1200 hrs, A.l.t., September 1, 2010.

FOR FURTHER INFORMATION CONTACT: Steve Whitney, 908–586–7269.

SUPPLEMENTARY INFORMATION: NMFS manages the groundfish fishery in the BSAI exclusive economic zone according to the Fishery Management Plan for Groundfish of the Bering Sea and Aleutian Islands Management Area (FMP) prepared by the North Pacific Fishery Management Council under authority of the Magnuson-Stevens Fishery Conservation and Management Act. Regulations governing fishing by U.S. vessels in accordance with the FMP appear at subpart H of 50 CFR part 600 and 50 CFR part 679.

The 2010 A season allocation of Atka mackerel allocated to vessels participating in the Amendment 80 limited access fishery in the Central Aleutian District was established as 7,457 metric tons (mt) by the final 2010 and 2011 harvest specifications for groundfish in the BSAI (75 FR 11778, March 12, 2010).

In accordance with § 679.20(d)(1)(i), the Regional Administrator has determined that the 2010 Atka mackerel A season TAC allocated to vessels participating in the Amendment 80 limited access fishery in the Central Aleutian District of the BSAI will soon be reached. Therefore, the Regional Administrator is establishing a directed

fishing allowance of 7,407 mt and is setting aside the remaining 50 mt as incidental catch to support other groundfish fisheries.

In accordance with § 679.20(d)(1)(iii), the Regional Administrator finds that this directed fishing allowance has been reached. Consequently, NMFS is prohibiting directed fishing for Atka mackerel in the Central Aleutian District by vessels participating in the Amendment 80 limited access fishery.

After the effective dates of this closure, the maximum retainable amounts at § 679.20(e) and (f) apply at any time during a trip.

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 a requirement is impracticable and contrary to the public interest. This requirement is impracticable and contrary to the public interest as it would prevent NMFS from responding to the most recent fisheries data in a timely fashion and would delay the closure of the Atka mackerel fishery in the Central Aleutian District for vessels participating in the Amendment 80 limited access fishery. NMFS was unable to publish a notice providing time for public comment because the most recent, relevant data only became available as of March 22, 2010. The AA also finds good cause to waive the 30–day delay in the effective date of this action under 5 U.S.C. 553(d)(3). This finding is based upon the reasons provided above for waiver of prior notice and opportunity for public comment.

This action is required by § 679.20 and is exempt from review under Executive Order 12866.

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

Dated: March 23, 2010.

Emily H. Menashes,

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

[FR Doc. 2010–6756 Filed 3–23–10; 4:15 pm]

BILLING CODE 3510–22–S

Proposed Rules

Federal Register
Vol. 75, No. 58
Friday, March 26, 2010

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

DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

7 CFR Part 205

[Doc. No. AMS–NOP–09–0074; NOP–09–01]

RIN 0581–AC96

National Organic Program, Sunset Review (2012)

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Advance notice of proposed rulemaking with request for comments.

SUMMARY: Sunset of the exempted or prohibited use of substances under the National Organic Program (NOP) is required by the Organic Foods Production Act of 1990 (OFPA). The exemptions and prohibitions granted under the OFPA are required to be reviewed every 5 years by the National Organic Standards Board (NOSB). The Secretary of Agriculture has authority under the OFPA to renew such exemptions and prohibitions. If they are not reviewed by the NOSB and renewed by the Secretary within 5 years of their inclusion on the National List, their authorized use or prohibition expires. This advance notice of proposed rulemaking (ANPR) announces the sunset of 37 exempted substances added to the National List for use in organic handling on June 27, 2007; the sunset of 183 continued exemptions (use) and prohibitions of substances used in organic production and handling added to the list on October 21, 2007; the sunset of 2 exemptions of one substance for continued use in organic crop and livestock production added to the national list on December 11, 2007; and the sunset of 10 exempted substances for use in organic livestock production added to the national list on December 13, 2007. This ANPR establishes June 27, 2012, October 21, 2012, December 11, 2012, and December 13, 2012, as the respective dates by which the sunset review and renewal process must be concluded. The NOP may try to conclude the sunset and renewal process for the 232 combined exempted and prohibited substances used in organic production and handling added to the National List in 2007 by the earliest respective date of June 27, 2012. This ANPR also begins the public comment process on whether the identified existing exemptions and prohibitions should be continued. Finally, this ANPR discusses how the NOP will manage the sunset review and renewal process.

DATES: Comments must be submitted on or before May 25, 2010.

ADDRESSES: Interested persons may submit written comments on this ANPR using the following addresses:

- *Mail:* Comments may be sent by mail to: Toni Strother, Agricultural Marketing Specialist, National Organic Program, USDA–AMS–NOP, 1400 Independence Ave., SW., Room 2624-So., Ag Stop 0268, Washington, DC 20250–0268.
- *Internet: http://www.regulations.gov.*

Written comments responding to this ANPR should be identified with the docket number AMS–NOP–09–0074; NOP–09–01. You should clearly indicate your position on continuing the allowance or prohibition of the substances identified in this ANPR and the reasons for your position. You should include relevant information and data to support your position (e.g., scientific, environmental, manufacturing, industry impact information, etc.). You should also supply information on alternative substances or alternative management practices, where applicable, that support a change from the current exemption of the substance. Only the supporting material relevant to your position will be considered.

It is our intention to have all comments concerning this ANPR, including names and addresses when provided, whether submitted by mail or Internet, available for viewing on the Regulations.gov (*http://www.regulations.gov*) internet site. Comments submitted in response to this ANPR will also be available for viewing in person at USDA–AMS, National Organic Program, Room 2646-South Building, 1400 Independence Ave., SW., Washington, DC, from 9 a.m. to 12 noon and from 1 p.m. to 4 p.m., Monday through Friday (except official Federal holidays). Persons wanting to visit the USDA South Building to view comments received in response to this ANPR are requested to make an appointment in advance by calling (202) 720–3252.

FOR FURTHER INFORMATION CONTACT: Shannon H. Nally, Acting Director, Standards Division, National Organic Program, USDA–AMS–NOP, 1400 Independence Ave., SW., Room 2646-So., Ag Stop 0268, Washington, DC 20250–0268. Telephone: (202) 720–3252.

SUPPLEMENTARY INFORMATION:

Background

The OFPA, 7 U.S.C. 6501 *et seq.,* authorizes the establishment of the National List of exempted and prohibited substances. The National List identifies synthetic substances (synthetics) that are exempted (allowed) and nonsynthetic substances (nonsynthetics) that are prohibited in organic crop and livestock production. The National List also identifies nonsynthetics and synthetics that are exempted for use in organic handling. The exemptions and prohibitions granted under the OFPA are required to be reviewed every 5 years by the National Organic Standards Board (NOSB). The Secretary of Agriculture has authority under the OFPA to renew such exemptions and prohibitions. If they are not reviewed by the NOSB and renewed by the Secretary within 5 years of their inclusion on the National List, their authorized use or prohibition expires.

The NOSB will review the continued exemption (use) of 37 agricultural products not commercially available as organic that are scheduled to expire after June 27, 2012. These products are allowed for use in organic handling in or on processed products based on final commercial availability determinations by accredited certifying agents. The NOSB will review the continued exemption (use) and prohibition of 183 substance listings used in organic production and handling scheduled to expire after October 21, 2012. The NOSB will review the continued exemption (use) of 2 listings for one substance for use in organic crop and livestock production scheduled to expire after December 11, 2012. The NOSB will review the continued exemption (use) of 10 substances for use

in organic livestock production scheduled to expire after December 13, 2012. Additionally, the NOP may try to conclude the sunset and renewal process for the 231 combined exempted and prohibited substances used in organic production and handling added to the National List in 2007 by the earliest respective date of June 27, 2012.

June 27, 2012 Sunset Materials

The Handling Committee will review the continued exemption (use) of the nonorganically produced agricultural products allowed as ingredients in or on processed products labeled as "organic" in § 205.606 depending on final commercial availability determinations performed by accredited certifying agents scheduled to expire after June 27, 2012. They are as follows: Annatto extract color (pigment CAS #1393–63–1)—water and oil soluble; Beet juice extract color (pigment CAS #7659–95–2); Beta-Carotene extract color from carrots (CAS #1393–63–1); Black currant juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Black/Purple carrot juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Blueberry juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Carrot juice color (pigment CAS #1393–63–1); Cherry juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Chokeberry—Aronia juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Elderberry juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Grape juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Grape skin extract color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Paprika color—dried powder and vegetable oil extract (CAS #68917–78–2); Pumpkin juice color (pigment CAS #127–40–2); Purple potato juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Red cabbage extract color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Red radish extract color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Saffron extract color (pigment CAS #1393–63–1), and Turmeric extract color (CAS #458–37–7).

The following are allowed as ingredients or processing aids from agricultural products per § 205.606: Casings, from processed intestines; Celery powder; Chia (*Salvia hispanica L.*); Dillweed oil (CAS #8006–75–5); Fish oil (Fatty acid CAS #'s: 10417–94–4, and 25167–62–8); Fructooligosaccharides (CAS #308066–66–2); Galangal, frozen; Gelatin (CAS #9000–70–8); Hops (*Humulus lupulus*); Inulin, oligofructose enriched (CAS #9005–80–5); Konjac flour (CAS #37220–17–0); Lemongrass, frozen; Orange shellac, unbleached (CAS #9000–59–3); Pepper, chipotle chile; Sweet potato starch, for bean thread production only; Turkish bay leaves; Wakame seaweed (*Undaria pinnatifida*); and Whey protein concentrate.

The exemptions and prohibitions granted under the OFPA are required to be reviewed every 5 years by the National Organic Standards Board (NOSB). The Secretary of Agriculture has authority under the OFPA to renew such exemptions and prohibitions. If they are not reviewed by the NOSB and renewed by the Secretary within 5 years of their inclusion on the National List, their authorized use or prohibition expires.

This means that the following color ingredients from agricultural products: Annatto extract color (pigment CAS #1393–63–1)—water and oil soluble; Beet juice extract color (pigment CAS #7659–95–2); Beta-Carotene extract color from carrots (CAS #1393–63–1); Black currant juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Black/Purple carrot juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Blueberry juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Carrot juice color (pigment CAS #1393–63–1); Cherry juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Chokeberry—Aronia juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Elderberry juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Grape juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Grape skin extract color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Paprika color—dried powder and vegetable oil extract (CAS #68917–78–2); Pumpkin juice color (pigment CAS #127–40–2); Purple potato juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Red cabbage extract color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Red radish extract color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3); Saffron extract color (pigment CAS #1393–63–1), and Turmeric extract color (CAS #458–37–7), currently allowed for use in organic handling, will no longer be allowed for use after June 27, 2012.

This also means that the following ingredients or processing aids from nonorganic agricultural products: Casings, from processed intestines; Celery powder; Chia (*Salvia hispanica L.*); Dillweed oil (CAS #8006–75–5); Fish oil (Fatty acid CAS #'s: 10417–94–4, and 25167–62–8); Fructooligosaccharides (CAS #308066–66–2); Galangal, frozen; Gelatin (CAS #9000–70–8); Hops (*Humulus lupulus*); Inulin, oligofructose enriched (CAS #9005–80–5); Konjac flour (CAS #37220–17–0); Lemongrass, frozen; Orange shellac, unbleached (CAS #9000–59–3); Pepper, chipotle chile; Sweet potato starch, for bean thread production only; Turkish bay leaves; Wakame seaweed (*Undaria pinnatifida*); and Whey protein concentrate, currently allowed for use in organic handling, will no longer be allowed for use after June 27, 2012.

October 21, 2012 Sunset Materials

The Crops Committee will review the continued exemption (use) of the following synthetic substances allowed for use in § 205.601 that are scheduled to expire after October 21, 2012, from use in organic crop production: Ethanol; Isopropanol; Calcium hypochlorite; Chlorine dioxide; Sodium hypochlorite; Hydrogen peroxide; Soap-based algicide/demossers; Herbicides, soap-based; Newspaper or other recycled paper, without glossy or colored inks (2 uses); Plastic mulch and covers; Soaps, ammonium; Ammonium carbonate; Boric acid; Elemental sulfur (3 uses); Lime sulfur (2 uses); Oils, horticultural-narrow range oils as dormant, suffocating, and summer oils (2 uses); Soaps, insecticidal; Sticky traps/barriers; Pheromones; Sulfur dioxide; Vitamin D_3; Copper hydroxide; Copper oxide; Copper oxychloride; Copper sulfate (2 uses); Hydrated lime; Hydrogen peroxide; Potassium bicarbonate; Streptomycin; Aquatic plant extracts (other than hydrolyzed); Humic acids; Lignin sulfonate (2 uses); Magnesium sulfate; Soluble boron products; Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt; Liquid fish products; Vitamin B_1; Vitamin C; Vitamin E;

Ethylene gas; Sodium silicate; and EPA List 4–Inerts of Minimal Concern.

The Crops Committee will review the continued prohibition of the following nonsynthetic substances in § 205.602 which are scheduled to expire and be allowed for use after October 21, 2012, in organic crop production: Ash from manure burning; Arsenic; Lead salts; Potassium chloride; Sodium fluoaluminate (mined); Sodium nitrate; Strychnine; and Tobacco dust (nicotine sulfate).

The Livestock Committee will review the continued exemption (use) of the following synthetic substances allowed for use in organic livestock production in § 205.603 that are scheduled to expire after October 21, 2012: Ethanol; Isopropanol; Aspirin; Vaccines; Chlorhexidine; Calcium hypochlorite; Chlorine dioxide; Sodium hypochlorite; Electrolytes; Glucose; Glycerine; Hydrogen peroxide; Iodine (2 uses); Magnesium sulfate; Oxytocin; Ivermectin; Phosphoric acid; Copper sulfate; Lidocaine; Lime, hydrated; Mineral oil; Procaine; Trace minerals; Vitamins; and EPA List 4—Inerts of Minimal Concern.

The Livestock Committee will also review the continued prohibition of the following nonsynthetic substance in § 205.604 which is scheduled to expire and be allowed for use after October 21, 2012, in organic livestock production: Strychnine.

The Handling Committee will review the continued exemption (use) of the following nonagricultural (nonorganic) substances allowed as ingredients in or on processed products labeled as "organic" or "made with organic (specified ingredients or food group(s))" currently scheduled for expiration after October 21, 2012 from § 205.605 as (a) Nonsynthetics allowed: Acids (Alginic; Citric; and Lactic); Bentonite; Calcium carbonate; Calcium chloride; Dairy cultures; Diatomaceous earth; Enzymes; Flavors; Kaolin; Magnesium sulfate; Nitrogen; Oxygen; Perlite; Potassium chloride; Potassium iodide; Sodium bicarbonate; Sodium carbonate; Waxes; Yeast (Autolysate; Bakers; Brewers; Nutritional; and Smoked).

The Handling Committee will review the continued exemption (use) of the following nonagricultural (nonorganic) substances allowed as ingredients in or on processed products labeled as "organic" or "made with organic (specified ingredients or food group(s))" currently scheduled for expiration after October 21, 2012, listed on § 205.605 as (b) Synthetics allowed: Alginates; Ammonium bicarbonate; Ammonium carbonate; Ascorbic acid; Calcium citrate; Calcium hydroxide; Calcium phosphates (monobasic, dibasic, and tribasic); Carbon dioxide; Chlorine materials (Calcium hypochlorite; Chlorine dioxide; and Sodium hypochlorite); Ethylene; Ferrous sulfate; Glycerides (mono and di); Glycerin; Hydrogen peroxide; Magnesium carbonate; Magnesium chloride; Magnesium stearate; Nutrient vitamins and minerals; Ozone; Pectin (low-methoxy); Phosphoric acid; Potassium acid tartrate; Potassium carbonate; Potassium citrate; Potassium hydroxide; Potassium iodide; Potassium phosphate; Silicon dioxide; Sodium citrate; Sodium hydroxide; Sodium phosphates; Sulfur dioxide; Tocopherols; and Xanthan gum.

The Handling Committee will review the continued exemption (use) of the nonorganically produced agricultural products allowed as ingredients in or on processed products labeled as "organic" in § 205.606 depending on final commercial availability determinations performed by accredited certifying agents that are scheduled to expire after October 21, 2012. They are as follows: Cornstarch (native); Gums-water extracted only (Arabic, Guar, Locust bean, Carob bean); Kelp; and Pectin (high-methoxy).

The exemptions and prohibitions granted under the OFPA are required to be reviewed every 5 years by the National Organic Standards Board (NOSB). The Secretary of Agriculture has authority under the OFPA to renew such exemptions and prohibitions. If they are not reviewed by the NOSB and renewed by the Secretary within 5 years of their inclusion on the National List, their authorized use or prohibition expires.

This means that the following synthetic substances: Ethanol; Isopropanol; Calcium hypochlorite; Chlorine dioxide; Sodium hypochlorite; Hydrogen peroxide (2 uses); Soap-based algicide/demossers; Herbicides, soap-based; Newspaper or other recycled paper, without glossy or colored inks (2 uses); Plastic mulch and covers; Soaps, ammonium; Ammonium carbonate; Boric acid; Elemental sulfur (3 uses); Lime sulfur (2 uses); Oils, horticultural-narrow range oils as dormant, suffocating, and summer oils (2 uses); Soaps, insecticidal; Sticky traps/barriers; Pheromones; Sulfur dioxide; Vitamin D_3; Copper hydroxide; Copper oxide; Copper oxychloride; Copper sulfate (2 uses); Hydrated lime; Hydrogen peroxide; Potassium bicarbonate; Streptomycin; Aquatic plant extracts (other than hydrolyzed); Humic acids; Lignin sulfonate (2 uses); Magnesium sulfate; Soluble boron products; Sulfates, carbonates, oxides, or silicates of zinc, copper, iron, manganese, molybdenum, selenium, and cobalt; Liquid fish products; Vitamin B_1; Vitamin C; Vitamin E; Ethylene gas; Lignin sulfonate; Sodium silicate; and EPA List 4—Inerts of Minimal Concern; currently allowed for use in organic crop production, will no longer be allowed for use after October 21, 2012.

This also means that the following nonsynthetic substances: Ash from manure burning; Arsenic; Lead salts; Potassium chloride; Sodium fluoaluminate (mined); Sodium nitrate; Strychnine; and Tobacco dust (nicotine sulfate); currently prohibited from use in organic crop production, will be allowed for use after October 21, 2012.

This means that the following synthetic substances: Ethanol; Isopropanol; Aspirin; Vaccines; Chlorhexidine; Calcium hypochlorite; Chlorine dioxide; Sodium hypochlorite; Electrolytes; Glucose; Glycerine; Hydrogen peroxide; Iodine (2 uses); Magnesium sulfate; Oxytocin; Ivermectin; Phosphoric acid; Copper sulfate; Lidocaine; Lime, hydrated; Mineral oil; Procaine; Trace minerals; Vitamins; and EPA List 4—Inerts of Minimal Concern; currently allowed for use in organic livestock production, will no longer be allowed for use after October 21, 2012.

This also means that the following nonsynthetic substance: Strychnine; currently prohibited from use in organic livestock production, will be allowed for use after October 21, 2012.

This means that the following nonagricultural (nonorganic) substances: Acids (Alginic; Citric; and Lactic); Bentonite; Calcium carbonate; Calcium chloride; Dairy cultures; Diatomaceous earth; Enzymes; Flavors; Kaolin; Magnesium sulfate; Nitrogen; Oxygen; Perlite; Potassium chloride; Potassium iodide; Sodium bicarbonate; Sodium carbonate; Waxes; Yeast (Autolysate; Bakers; Brewers; Nutritional; and Smoked); currently allowed for use in organic handling, will no longer be allowed for use after October 21, 2012.

This means that the following synthetic substances: Alginates; Ammonium bicarbonate; Ammonium carbonate; Ascorbic acid; Calcium citrate; Calcium hydroxide; Calcium phosphates (monobasic, dibasic, and tribasic); Carbon dioxide; Chlorine materials (Calcium hypochlorite; Chlorine dioxide; and Sodium hypochlorite); Ethylene; Ferrous sulfate; Glycerides (mono and di); Glycerin; Hydrogen peroxide; Magnesium carbonate; Magnesium chloride; Magnesium stearate; Nutrient vitamins

and minerals; Ozone; Pectin (low-methoxy); Phosphoric acid; Potassium acid tartrate; Potassium carbonate; Potassium citrate; Potassium hydroxide; Potassium iodide; Potassium phosphate; Silicon dioxide; Sodium citrate; Sodium hydroxide; Sodium phosphates; Sulfur dioxide; Tocopherols; and Xanthan gum; currently allowed for use in organic handling, will no longer be allowed for use after October 21, 2012.

This also means that the following ingredients or processing aids from nonorganic agricultural products: Cornstarch (native); Gums-water extracted only (Arabic, Guar, Locust bean, Carob bean); Kelp; and Pectin (high-methoxy); currently allowed for use in organic handling, will no longer be allowed for use after October 21, 2012.

December 11, 2012 Sunset Materials

The Crops Committee will review the continued exemption (use) of the following synthetic substance allowed for use in organic crop production in § 205.601 that is scheduled to expire after December 11, 2012: Sucrose octanoate esters. The Livestock Committee will review the continued use of the following synthetic substance allowed for use in organic livestock production in § 205.603 that is scheduled to expire after December 11, 2012: Sucrose octanoate esters.

The exemptions and prohibitions granted under the OFPA are required to be reviewed every 5 years by the National Organic Standards Board (NOSB). The Secretary of Agriculture has authority under the OFPA to renew such exemptions and prohibitions. If they are not reviewed by the NOSB and renewed by the Secretary within 5 years of their inclusion on the National List, their authorized use or prohibition expires.

This means that the following listings of the synthetic substance: Sucrose octanoate esters (2 uses); currently allowed for use in organic crop and livestock production, will no longer be allowed for use after December 11, 2012.

December 13, 2012 Sunset Materials

The Livestock Committee will review the continued exemptions (use) of the following synthetic substances for use in organic livestock production in § 205.603 that are scheduled to expire after December 13, 2012: Atropine (CAS #–51–55–8); Butorphanol (CAS #–42408–82–2); Flunixin (CAS #–38677–85–9); Furosemide (CAS #–54–31–9); Magnesium hydroxide (CAS #–1309–42–8); Peroxyacetic/Peracetic acid (CAS #–79–21–0); Poloxalene (CAS #–9003–11–6); Tolazoline (CAS #–59–98–3); Xylazine (CAS #–7361–61–7); and Excipients.

The exemptions and prohibitions granted under the OFPA are required to be reviewed every 5 years by the NOSB. The Secretary of Agriculture has authority under the OFPA to renew such exemptions and prohibitions. If they are not reviewed by the NOSB and renewed by the Secretary within 5 years of their inclusion on the National List, their authorized use or prohibition expires.

This means that the following synthetic substances: Atropine (CAS #–51–55–8); Butorphanol (CAS #–42408–82–2); Flunixin (CAS #–38677–85–9); Furosemide (CAS #–54–31–9); Magnesium hydroxide (CAS #–1309–42–8); Peroxyacetic/Peracetic acid (CAS #–79–21–0); Poloxalene (CAS #–9003–11–6); Tolazoline (CAS #–59–98–3); Xylazine (CAS #–7361–61–7); and Excipients; currently allowed for use in organic livestock production, will no longer be allowed for use after December 13, 2012.

Expiration of the exempted or prohibited use of substances is provided for under the OFPA's sunset provision. This ANPR announces the sunset of 37 exempted substances added to the National List for use in organic handling on June 27, 2007; the sunset of 183 continued exemptions (use) and prohibitions of substances used in organic production and handling added to the list on October 21, 2007; the sunset of two exemptions of one substance for use in organic crop and livestock production added to the national list on December 11, 2007; and the sunset of 10 exempted substances for use in organic livestock production added to the national list on December 13, 2007. This ANPR establishes June 27, 2012, October 21, 2012, December 11, 2012, and December 13, 2012, as the respective dates by which the sunset review and renewal process must be concluded. Additionally, the NOP may try to conclude the sunset and renewal process for the 232 combined exempted and prohibited listings used in organic production and handling added to the National List in 2007 by the earliest respective date of June 27, 2012. The exemptions and prohibitions not renewed by their respective dates will be removed from the National List. This ANPR also begins the public comment process on whether the existing specific exemptions on the National List should be continued. This ANPR discusses how the NOP will manage the sunset review and renewal process.

Because these substances may be critical to the production and handling of a wide array of raw and processed organic agricultural products, their expiration could cause disruption of well-established and accepted organic production, handling, and processing systems. Therefore, the NOP is initiating the sunset review and renewal process now, in order to provide ample opportunity for the public to make their views known and to inform the decisions of the NOSB.

The Sunset Process

As the first step in this process, we invite public comment on the specific exemptions currently on the National List that are described in this document. All substances currently on the National List have been previously evaluated and determined by the NOSB for consistency with OFPA and its implementing regulations. According to § 6517(e) of the OFPA, these substances must be reviewed by the NOSB and renewed by the Secretary for their use to continue after 5 years of their addition to the National List which will be June 27, 2012, October 21, 2012, December 11, 2012, and December 13, 2012, respectively. The NOP may try to conclude the sunset and renewal process for the 232 combined exempted and prohibited listings used in organic production and handling added to the National List in 2007 by the earliest respective date of June 27, 2012. Public comments submitted will be considered in the review and renewal process.

The NOP will forward comments received under this ANPR to the NOSB for review. The NOSB will review the exemptions and prohibitions of the listings designated to sunset, including the public comments received during this review. The NOSB will review each of the substances listed in this ANPR and may determine that certain substances warrant a more in-depth review and require additional information or research that considers new scientific data and technological and market advances.

Following the NOSB's review, the NOSB will make a recommendation to the Secretary about the continuation of specific exemptions and prohibitions for the substances listed in this ANPR. After the Secretary receives and reviews the NOSB's recommendations, the NOP will publish a proposed rule regarding the NOSB recommendations. This proposed rule will provide an additional opportunity for the public to express their views. Comments received on the proposed rule will be used to develop a final rule. Because the sunset review and renewal process involves rulemaking, the NOP believes it is appropriate to initiate the process now.

Guidance on Submitting Your Comments

If you provide comments that support the renewal of any or all existing exemptions and/or prohibitions included within this ANPR, you should clearly indicate this and provide your reasons and any relevant documentation that supports your position.

Comments That Support Existing Exemptions and Prohibitions

Comments in support of a continued exemption of a substance should demonstrate that the substance is: (1) Not harmful to human health or the environment, (2) necessary to the production of the agricultural products because of the unavailability of wholly nonsynthetic substitute products, and (3) consistent with organic farming and handling. Comments in support of a continued prohibition should explain how the use of the substance would continue to be: (1) Harmful to human health or the environment, or (2) inconsistent with organic farming and handling.

Comments That DO NOT Support Continuing Existing Exemptions or Prohibitions

If you provide comments that do not support continuing an existing exemption and/or prohibition, you should provide reasons why the use of the substance should no longer be allowed/prohibited in organic agricultural production and handling. Specifically, comments that support the removal of a substance from the National List should provide information to demonstrate that the substance is: (1) Harmful to human health or the environment; (2) unnecessary because of the availability of alternatives; or (3) inconsistent with organic farming or handling. Comments that do not support a continued prohibition should explain how the use of the substance would not be: (1) Harmful to human health or the environment, or (2) inconsistent with organic farming and handling.

The current exemptions were originally recommended by the NOSB based on evidence available to the NOSB at the time of review which demonstrated that the substances were found to be: (1) Not harmful to human health or the environment, (2) necessary because of the unavailability of wholly nonsynthetic alternatives, and (3) consistent and compatible with organic practices. Therefore, comments against the continued exemption or supporting the continued prohibition of a substance should demonstrate how the current substance is: (1) Harmful to human health or the environment, (2) not necessary to the production of the agricultural products because of the availability of wholly nonsynthetic substitute products, or (3) inconsistent with organic farming and handling.

All Comments

An Appendix to this ANPR contains worksheets to assist you in gathering relevant information concerning these issues. These worksheets are not required to submit a comment. These worksheets are used by the NOSB to develop their recommendations to the Secretary to include an exempted substance on the National List. You do not have to answer the questions on the worksheets; they are intended only to help you provide substantive comments to the NOSB when you provide comments on the specific substance.

Comments, regardless of whether they support or do not support the continued use of a substance(s) listed within this ANPR, should provide evidence concerning the viability of alternatives for the substance you believe should be discontinued or renewed. Viable alternatives include, but are not limited to: Alternative management practices that would eliminate the need for the specific substance; other currently exempted substances that are on the National List which could eliminate the need for this specific substance; and other organic or nonorganic agricultural substances. Such evidence should adequately address whether any alternatives have a function and effect that equals or surpasses the specific exempted substance, whether that you want the substance to be renewed or do not want its use to be continued. Assertions about an alternative substance except for those alternatives that already appear on the National List should, if possible include the name and address of the manufacturer of the alternative. Further, your comments should include a copy or the specific source of any supportive literature, which could include product or practice descriptions; performance and test data; reference standards; name and address of producers who have used the alternative under similar conditions and the date of use; and an itemized comparison of the function and effect of the proposed alternative(s) with substance under review. The chart below can help you describe recommended alternatives for different types of organic operations in place of a current exempted substance that you do not want to be continued.

If the currently listed substance is used in . . .	And is a (an) . . .	Then the recommended alternative should be a (an) . . .
Crop or Livestock Production	Synthetic substance	—Another currently listed synthetic substance; —Nonsynthetic substance; or —Management practice.
Crop or Livestock Production	Synthetic inert substance (pesticidal)	—Another currently listed synthetic substance; or —Nonsynthetic substance.
Handling	Synthetic substance	—Another currently listed synthetic substance; —Nonsynthetic (non-ag) substance; or —Management practice.
Handling	Nonsynthetic (non-ag) substance	—Agricultural substance; or —Management practice.
Handling	Nonorganic agricultural product	—Organic agricultural product.

The NOP understands that supportive technical or scientific information for synthetic alternatives not currently on the National List may not be easily available to organic producers and handlers. Such information may, however, be available from the research community including universities, or other sources, including international organic programs.

Request for Comments

The NOP requests that you comment whether the NOSB should continue to recommend the following exemptions and prohibitions on the National List of

Allowed and Prohibited Substances for organic agricultural production and handling. Comments must be submitted on or before May 25, 2010.

Synthetic substances allowed for use in organic crop production.

As algicide, disinfectants, and sanitizer, including irrigation system cleaning systems.

Alcohols.

(1) Ethanol.

(2) Isopropanol.

Chlorine materials— *Except,* That, residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.

(3) Calcium hypochlorite.

(4) Chlorine dioxide.

(5) Sodium hypochlorite.

(6) Hydrogen peroxide.

(7) Soap-based algicide/demossers.

As herbicides, weed barriers, as applicable.

(8) Herbicides, soap-based—for use in farmstead maintenance (roadways, ditches, rights of way, building perimeters) and ornamental crops.

Mulches.

(9) Newspaper or other recycled paper, without glossy or colored inks.

(10) Plastic mulch and covers (petroleum-based other than polyvinyl chloride (PVC)).

As compost feedstocks.

(11) Newspapers or other recycled paper, without glossy or colored inks.

As animal repellents.

(12) Soaps, ammonium—for use as a large animal repellant only, no contact with soil or edible portion of crop.

As insecticides (including acaricides or mite control).

(13) Ammonium carbonate—for use as bait in insect traps only, no direct contact with crop or soil.

(14) Boric acid—structural pest control, no direct contact with organic food or crops.

(15) Elemental sulfur.

(16) Lime sulfur—including calcium polysulfide.

(17) Oils, horticultural—narrow range oils as dormant, suffocating, and summer oils.

(18) Soaps, insecticidal.

(19) Sticky traps/barriers.

(20) Sucrose octanoate esters (CAS #s–42944–74–7; 58064–47–4)—in accordance with approved labeling.

As insect management.

(21) Pheromones.

As rodenticides.

(22) Sulfur dioxide—underground rodent control only (smoke bombs).

(23) Vitamin D_3.

As plant disease control.

Coppers, fixed

(24) copper hydroxide

(25) copper oxide

(26) copper oxychloride

(27) Copper sulfate—Substance must be used in a manner that minimizes accumulation of copper in the soil.

(28) Hydrated lime.

(29) Hydrogen peroxide.

(30) Lime sulfur.

(31) Oils, horticultural, narrow range oils as dormant, suffocating, and summer oils.

(32) Potassium bicarbonate.

(33) Elemental sulfur.

(34) Streptomycin, for fire blight control in apples and pears only.

As plant or soil amendments.

(35) Aquatic plant extracts (other than hydrolyzed)—Extraction process is limited to the use of potassium hydroxide or sodium hydroxide; solvent amount used is limited to that amount necessary for extraction.

(36) Elemental sulfur.

(37) Humic acids—naturally occurring deposits, water and alkali extracts only.

(38) Lignin sulfonate—chelating agent, dust suppressant, flotation agent.

(39) Magnesium sulfate—allowed with a documented soil deficiency.

Micronutrients—not to be used as a defoliant, herbicide, or desiccant. Those made from nitrates or chlorides are not allowed. Soil deficiency must be documented by testing.

(40) Soluble boron products.

(41) Sulfates of zinc

(42) Sulfates of copper

(43) Sulfates of iron

(44) Sulfates of manganese

(45) Sulfates of molybdenum

(46) Sulfates of selenium

(47) Sulfates of cobalt

(48) Carbonates of zinc

(49) Carbonates of copper

(50) Carbonates of iron

(51) Carbonates of manganese

(52) Carbonates of molybdenum

(53) Carbonates of selenium

(54) Carbonates of cobalt

(55) Oxides of zinc

(56) Oxides of copper

(57) Oxides of iron

(58) Oxides of manganese

(59) Oxides of molybdenum

(60) Oxides of selemium

(61) Oxides of cobalt

(62) Silicates of zinc

(63) Silicates of copper

(64) Silicates of iron

(65) Silicates of manganese

(66) Silicates of molybdenum

(67) Silicates of selenium

(68) Silicates of cobalt.

(69) Liquid fish products—can be pH adjusted with sulfuric, citric or phosphoric acid. The amount of acid used shall not exceed the minimum needed to lower the pH to 3.5.

(70) Vitamin B_1

(71) Vitamin C

(72) Vitamin E

As plant growth regulators.

(73) Ethylene gas—for regulation of pineapple flowering.

As floating agents in postharvest handling.

(74) Lignin sulfonate.

(75) Sodium silicate—for tree fruit and fiber processing.

As synthetic inert ingredients as classified by the Environmental Protection Agency (EPA), for use with nonsynthetic substances or synthetic substances listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances.

(76) EPA List 4—Inerts of Minimal Concern.

Nonsynthetic substances prohibited for use in organic crop production.

(77) Ash from manure burning.

(78) Arsenic.

(79) Lead salts.

(80) Potassium chloride—unless derived from a mined source and applied in a manner that minimizes chloride accumulation in the soil.

(81) Sodium fluoaluminate (mined).

(82) Sodium nitrate—unless use is restricted to no more than 20% of the crop's total nitrogen requirement.

(83) Strychnine.

(84) Tobacco dust (nicotine sulfate).

Synthetic substances allowed for use in organic livestock production.

As disinfectants, sanitizer, and medical treatments as applicable.

Alcohols.

(85) Ethanol-disinfectant and sanitizer only, prohibited as a feed additive.

(86) Isopropanol-disinfectant only.

(87) Aspirin-approved for health care use to reduce inflammation.

(88) Atropine (CAS #–51–55–8)—federal law restricts this drug to use by or on the lawful written or oral order of a licensed veterinarian, in full compliance with the AMDUCA and 21 CFR part 530 of the Food and Drug Administration regulations. Also, for use under 7 CFR part 205, the NOP requires: (i) Use by or on the lawful written order of a licensed veterinarian; and (ii) A meat withdrawal period of at least 56 days after administering to livestock intended for slaughter; and a milk discard period of at least 12 days after administering to dairy animals.

Biologics.

(89) Vaccines.

(90) Butorphanol (CAS #–42408–82–2)—federal law restricts this drug to use by or on the lawful written or oral order of a licensed veterinarian, in full compliance with the AMDUCA and 21 CFR part 530 of the Food and Drug Administration regulations. Also, for

use under 7 CFR part 205, the NOP requires: (i) Use by or on the lawful written order of a licensed veterinarian; and (ii) A meat withdrawal period of at least 42 days after administering to livestock intended for slaughter; and a milk discard period of at least 8 days after administering to dairy animals.

(91) Chlorhexidine—Allowed for surgical procedures conducted by a veterinarian. Allowed for use as a teat dip when alternative germicidal agents and/or physical barriers have lost their effectiveness.

Chlorine materials—disinfecting and sanitizing facilities and equipment. Residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.

(92) Calcium hypochlorite.

(93) Chlorine dioxide.

(94) Sodium hypochlorite.

(95) Electrolytes—without antibiotics.

(96) Flunixin (CAS #–38677–85–9)—in accordance with approved labeling; except that for use under 7 CFR part 205, the NOP requires a withdrawal period of at least two-times that required by the FDA.

(97) Furosemide (CAS #–54–31–9)—in accordance with approved labeling; except that for use under 7 CFR part 205, the NOP requires a withdrawal period of at least two-times that required that required by the FDA.

(98) Glucose.

(99) Glycerine—Allowed as a livestock teat dip, must be produced through the hydrolysis of fats or oils.

(100) Hydrogen peroxide.

(101) Iodine.

(102) Magnesium hydroxide (CAS #–1309–42–8)—federal law restricts this drug to use by or on the lawful written or oral order of a licensed veterinarian, in full compliance with the AMDUCA and 21 CFR part 530 of the Food and Drug Administration regulations. Also, for use under 7 CFR part 205, the NOP requires use by or on the lawful written order of a licensed veterinarian.

(103) Magnesium sulfate.

(104) Oxytocin—use in postparturition therapeutic applications.

Paraciticides.

(105) Ivermectin—prohibited in slaughter stock, allowed in emergency treatment for dairy and breeder stock when organic system plan-approved preventive management does not prevent infestation. Milk or milk products from a treated animal cannot be labeled as provided for in subpart D of this part for 90 days following treatment. In breeder stock, treatment cannot occur during the last third of gestation if the progeny will be sold as organic and must not be used during the lactation period for breeding stock.

(106) Peroxyacetic/peracetic acid (CAS #–79–21–0)—for sanitizing facility and processing equipment.

(107) Phosphoric acid—allowed as an equipment cleaner, Provided, That, no direct contact with organically managed livestock or land occurs.

(108) Poloxalene (CAS #–9003–11–6)—for use under 7 CFR Part 205, the NOP requires that poloxalene only be used for the emergency treatment of bloat.

(109) Tolazoline (CAS #–59–98–3)—federal law restricts this drug to use by or on the lawful written or oral order of a licensed veterinarian, in full compliance with the AMDUCA and 21 CFR part 530 of the Food and Drug Administration regulations. Also, for use under 7 CFR part 205, the NOP requires: (i) Use by or on the lawful written order of a licensed veterinarian; (ii) Use only to reverse the effects of sedation and analgesia caused by Xylazine; and (iii) A meat withdrawal period of at least 8 days after administering to livestock intended for slaughter; and a milk discard period of at least 4 days after administering to dairy animals.

(110) Xylazine (CAS #–7361–61–7)—federal law restricts this drug to use by or on the lawful written or oral order of a licensed veterinarian, in full compliance with the AMDUCA and 21 CFR part 530 of the Food and Drug Administration regulations. Also, for use under 7 CFR Part 205, the NOP requires: (i) Use by or on the lawful written order of a licensed veterinarian; (ii) The existence of an emergency; and (iii) A meat withdrawal period of at least 8 days after administering to livestock intended for slaughter; and a milk discard period of at least 4 days after administering to dairy animals. As topical treatment, external parasiticide or local anesthetic as applicable.

(111) Copper sulfate.

(112) Iodine.

(113) Lidocaine—as a local anesthetic. Use requires a withdrawal period of 90 days after administering to livestock intended for slaughter and 7 days after administering to dairy animals.

(114) Lime, hydrated—as an external pest control, not permitted to cauterize physical alterations or deodorize animal wastes.

(115) Mineral oil—for topical use and as a lubricant.

(116) Procaine—as a local anesthetic, use requires a withdrawal period of 90 days after administering to livestock intended for slaughter and 7 days after administering to dairy animals.

(117) Sucrose octanoate esters (CAS #s–42922–74–2; 58064–47–4)—in accordance with approved labeling.

As feed additives.

(118) Trace minerals, used for enrichment or fortification when FDA approved.

(119) Vitamins, used for enrichment or fortification when FDA approved.

As synthetic inert ingredients as classified by the Environmental Protection Agency (EPA), for use with nonsynthetic substances or synthetic substances listed in this section and used as an active pesticide ingredient in accordance with any limitations on the use of such substances.

(120) EPA List 4—Inerts of Minimal Concern.

(121) Excipients, only for use in the manufacture of drugs used to treat organic livestock when the excipient is: Identified by the FDA as Generally Recognized As Safe; Approved by the FDA as a food additive; or Included in the FDA review and approval of a New Animal Drug Application or New Drug Application.

Nonsynthetic substances prohibited for use in organic livestock production.

(122) Strychnine.

Nonagricultural (nonorganic) substances allowed as ingredients in or on processed products labeled as "organic" or "made with organic (specified ingredients or food group(s))."

Nonsynthetics allowed:

(123) Alginic acid.

(124) Citric acid—produced by microbial fermentation of carbohydrate substances.

(125) Lactic acid.

(126) Bentonite.

(127) Calcium carbonate.

(128) Calcium chloride.

(129) Dairy cultures.

(130) Diatomaceous earth—food filtering aid only.

(131) Enzymes—must be derived from edible, nontoxic plants, nonpathogenic fungi, or nonpathogenic bacteria.

(132) Flavors, nonsynthetic sources only and must not be produced using synthetic solvents and carrier systems or any artificial preservative.

(133) Kaolin.

(134) Magnesium sulfate, nonsynthetic sources only.

(135) Nitrogen—oil-free grades.

(136) Oxygen—oil-free grades.

(137) Perlite—for use only as a filter aid in food processing.

(138) Potassium chloride.

(139) Potassium iodide.

(140) Sodium bicarbonate.

(141) Sodium carbonate.

(142) Carnauba wax—nonsynthetic.

(143) Wood resin wax—nonsynthetic.

Yeast—nonsynthetic, growth on petrochemical substrate and sulfite waste liquor is prohibited.

(144) Autolysate.

(145) Bakers.
(146) Brewers.
(147) Nutritional.
(148) Smoked—nonsynthetic smoke flavoring process must be documented.
Synthetics allowed:
(149) Alginates.
(150) Ammonium bicarbonate—for use only as a leavening agent.
(151) Ammonium carbonate—for use only as a leavening agent.
(152) Ascorbic acid.
(153) Calcium citrate.
(154) Calcium hydroxide.
(155) Calcium phosphates monobasic.
(156) Calcium phosphates dibasic.
(157) Calcium phosphates tribasic.
(158) Carbon dioxide.
Chlorine materials—disinfecting and sanitizing food contact surfaces, Except, That, residual chlorine levels in the water shall not exceed the maximum residual disinfectant limit under the Safe Drinking Water Act.
(159) Calcium hypochlorite.
(160) Chlorine dioxide.
(161) Sodium hypochlorite.
(162) Ethylene—allowed for postharvest ripening of tropical fruit and degreening of citrus.
(163) Ferrous sulfate—for iron enrichment or fortification of foods when required by regulation or recommended (independent organization).
(164) Monoglycerides—for use only in drum drying of food.
(165) Diglycerides—for use only in drum drying of food.
(166) Glycerin—produced by hydrolysis of fats and oils.
(167) Hydrogen peroxide.
(168) Magnesium carbonate—for use only in agricultural products labeled "made with organic (specified ingredients or food group(s))," prohibited in agricultural products labeled "organic".
(169) Magnesium chloride—derived from sea water.
(170) Magnesium stearate—for use only in agricultural products labeled "made with organic (specified ingredients or food group(s))," prohibited in agricultural products labeled "organic".
(171) Nutrient vitamins in accordance with 21 CFR 104.20, Nutritional Quality Guidelines For Foods.
(172) Nutrient minerals in accordance with 21 CFR 104.20, Nutritional Quality Guidelines For Foods.
(173) Ozone.
(174) Pectin (low-methoxy).
(175) Phosphoric acid—cleaning of food-contact surfaces and equipment only.
(176) Potassium acid tartrate.
(177) Potassium carbonate.
(178) Potassium citrate.
(179) Potassium hydroxide—prohibited for use in lye peeling of fruits and vegetables except when used for peeling peaches during the Individually Quick Frozen (IQF) production process.
(180) Potassium iodide—for use only in agricultural products labeled "made with organic (specified ingredients or food group(s))," prohibited in agricultural products labeled "organic".
(181) Potassium phosphate—for use only in agricultural products labeled "made with organic (specific ingredients or food group(s))," prohibited in agricultural products labeled "organic".
(182) Silicon dioxide.
(183) Sodium citrate.
(184) Sodium hydroxide—prohibited for use in lye peeling of fruits and vegetables.
(185) Sodium phosphates—for use only in dairy foods.
(186) Sulfur dioxide—for use only in wine labeled "made with organic grapes," Provided, That, total sulfite concentration does not exceed 100 ppm.
(187) Tocopherols—derived from vegetable oil when rosemary extracts are not a suitable alternative.
(188) Xanthan gum.
Nonorganically produced agricultural products allowed as ingredients in or on processed products labeled as "organic."
(189) Casings, from processed intestines.
(190) Celery powder.
(191) Chia (*Salvia hispanica L.*).
Colors derived from agricultural products—
(192) Annatto extract color (pigment CAS #1393–63–1)—water and oil soluble.
(193) Beet juice extract color (pigment CAS #7659–95–2).
(194) Beta-carotene extract color, derived from carrots (CAS #1393–63–1).
(195) Black currant juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3).
(196) Black/Purple carrot juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3).
(197) Blueberry juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3).
(198) Carrot juice color (pigment CAS #1393–63–1).
(199) Cherry juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3).
(200) Chokeberry—Aronia juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3).
(201) Elderberry juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3).
(202) Grape juice color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3).
(203) Grape skin extract color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3).
(204) Paprika color (CAS #68917–78–2)—dried, and oil extracted.
(205) Pumpkin juice color (pigment CAS #127–40–2).
(206) Purple potato juice (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3).
(207) Red cabbage extract color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3).
(208) Red radish extract color (pigment CAS #'s: 528–58–5, 528–53–0, 643–84–5, 134–01–0, 1429–30–7, and 134–04–3).
(209) Saffron extract color (pigment CAS #1393–63–1).
(210) Turmeric extract color (CAS #458–37–7).
(211) Dillweed oil (CAS #8006–75–5).
(212) Fish oil (Fatty acid CAS #'s: 10417–94–4, and 25167–62–8)—stabilized with organic ingredients or only with ingredients on the National List, §§ 205.605 and 205.606.
(213) Fructooligosaccharides (CAS #308066–66–2).
(214) Galangal, frozen.
(215) Gelatin (CAS #9000–70–8).
Gums—water extracted only.
(216) Arabic.
(217) Guar.
(218) Locust bean.
(219) Carob bean.
(220) Hops (*Humulus luplus*).
(221) Inulin-oligofructose enriched (CAS #9005–80–5).
(222) Kelp—for use only as a thickener and dietary supplement.
(223) Konjac flour (CAS #7220–17–0).
(224) Lemongrass—frozen.
(225) Orange shellac-unbleached (CAS #9000–59–3).
(226) Pectin (high-methoxy).
(227) Peppers (Chipotle chile).
Starches.
(228) Cornstarch (native).
(229) Sweet potato starch—for bean thread production only.
(230) Turkish bay leaves.
(231) Wakame seaweed (*Undaria pinnatifida*).
(232) Whey protein concentrate.

Authority: 7 U.S.C. 6501–6522 *et seq.* and 7 CFR part 205.

Dated: March 22, 2010.

Rayne Pegg,

Administrator, Agricultural Marketing Service.

Appendix

This Appendix contains worksheets to assist you in gathering relevant information concerning the compatibility of substances with evaluation criteria of the OFPA. These worksheets are not required to submit a comment. These worksheets are used by the NOSB to develop their recommendations to the Secretary to include an exempted or prohibited substance on the National List. You do not have to answer the questions on the worksheets; they are intended only to help you provide substantive comments to the NOSB when you provide comments on the specific substance.

NOSB EVALUATION CRITERIA FOR SUBSTANCES ADDED TO THE NATIONAL LIST

Question	Yes	No	N/A [1]	Documentation (TAP; petition; regulatory agency; other)
Category 1. Adverse impacts on humans or the environment?				
1. Are there adverse effects on environment from manufacture, use, or disposal? [§ 205.600 b.2]				
2. Is there environmental contamination during manufacture, use, misuse, or disposal? [§ 6518 m.3]				
3. Is the substance harmful to the environment? [§ 6517 c(1)(A)(i); 6517(c)(2)(A)i]				
4. Does the substance contain List 1, 2, or 3 inerts? [§ 6517 c(1)(B)(ii); 205.601(m)2]				
5. Is there potential for detrimental chemical interaction with other materials used? [§ 6518 m.1]				
6. Are there adverse biological and chemical interactions in agro-ecosystem? [§ 6518 m.5]				
7. Are there detrimental physiological effects on soil organisms, crops, or livestock? [§ 6518 m.5]				
8. Is there a toxic or other adverse action of the material or its breakdown products? [§ 6518 m.2]				
9. Is there undesirable persistence or concentration of the material or breakdown products in environment? [§ 6518 m.2]				
10. Is there any harmful effect on human health? [§ 6517 c(1)(A)(i); 6517 c(2)(A)i; § 6518 m.4]				
11. Is there an adverse effect on human health as defined by applicable Federal regulations? [205.600 b.3]				
12. Is the substance GRAS when used according to FDA's good manufacturing practices? [§ 205.600 b.5]				
13. Does the substance contain residues of heavy metals or other contaminants in excess of FDA tolerances? [§ 205.600 b.5]				
Category 2. Is the Substance Essential for Organic Production?				
1. Is the substance formulated or manufactured by a chemical process? [6502 (21)]				
2. Is the substance formulated or manufactured by a process that chemically changes a substance extracted from naturally occurring plant, animal, or mineral, sources? [6502 (21)]				
3. Is the substance created by naturally occurring biological processes? [6502 (21)]				
4. Is there a natural source of the substance? [§ 205.600 b.1]				
5. Is there an organic substitute? [§ 205.600 b.1]				
6. Is the substance essential for handling of organically produced agricultural products? [§ 205.600 b.6]				
7. Is there a wholly natural substitute product? [§ 6517 c (1)(A)(ii)]				
8. Is the substance used in handling, not synthetic, but not organically produced? [§ 6517 c(1)(B)(iii)]				
9. Is there any alternative substances? [§ 6518 m.6]				
10. Is there another practice that would make the substance unnecessary? [§ 6518 m.6]				
Category 3. Is the substance compatible with organic production practices?				
1. Is the substance compatible with organic handling? [§ 205.600 b.2]				

NOSB EVALUATION CRITERIA FOR SUBSTANCES ADDED TO THE NATIONAL LIST—Continued

Question	Yes	No	N/A [1]	Documentation (TAP; petition; regulatory agency; other)
2. Is the substance consistent with organic farming and handling? [§ 6517 c(1)(A)(iii); 6517 c(2)(A)(ii)] 3. Is the substance compatible with a system of sustainable agriculture? [§ 6518 m.7] 4. Is the nutritional quality of the food maintained with the substance? [§ 205.600 b.3] 5. Is the primary use as a preservative? [§ 205.600 b.4] 6. Is the primary use to recreate or improve flavors, colors, textures, or nutritive values lost in processing (except when required by law, e.g., vitamin D in milk)? [205.600 b.4] 7. Is the substance used in production, and does it contain an active synthetic ingredient in the following categories: a. copper and sulfur compounds; b. toxins derived from bacteria; c. pheromones, soaps, horticultural oils, fish emulsions, treated seed, vitamins and minerals? d. livestock parasiticides and medicines? e. production aids including netting, tree wraps and seals, insect traps, sticky barriers, row covers, and equipment cleaners?				
Question	Yes	No	N/A	Comments on information provided (sufficient, plausible, reasonable, thorough, complete, unknown)
Category 4. Is the commercial supply of an agricultural substance as organic, fragile or potentially unavailable? [§ 6610, 6518, 6519, 205.2, 205.105 (d), 205.600 (c), 205.2, 205.105 (d), 205.600 (c)]				
1. *Is the comparative description provided* as to why the non-organic form of the material/substance is necessary for use in organic handling? 2. Does the current and historical industry information, research, or evidence provided explain how or why the material/substance cannot be obtained organically in the appropriate *form* to fulfill an essential function in a system of organic handling? 3. Does the current and historical industry information, research, or evidence provided explain how or why the material/substance cannot be obtained organically in the appropriate *quality* to fulfill an essential function in a system of organic handling? 4. Does the current and historical industry information, research, or evidence provided explain how or why the material/substance cannot be obtained organically in the appropriate *quantity* to fulfill an essential function in a system of organic handling? 5. Does the industry information provided on material/substance non-availability as organic, include (but not limited to) the following: a. Regions of production (including factors such as climate and number of regions); b. Number of suppliers and amount produced; c. Current and historical supplies related to weather events such as hurricanes, floods, and droughts that may temporarily halt production or destroy crops or supplies; d. Trade-related issues such as evidence of hoarding, war, trade barriers, or civil unrest that may temporarily restrict supplies; or e. Are there other issues which may present a challenge to a consistent supply?				

[1] If the substance under review is for crops or livestock production, all of the questions from 205.600 (b) are N/A—not applicable.

[FR Doc. 2010–6683 Filed 3–25–10; 8:45 am]

BILLING CODE P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

21 CFR Part 807

[Docket No. FDA–2009–N–0114]

RIN 0910–AF88

Implementation of Device Registration and Listing Requirements Enacted in the Public Health Security and Bioterrorism Preparedness and Response Act of 2002, the Medical Device User Fee and Modernization Act of 2002, and Title II of the Food and Drug Administration Amendments Act of 2007

AGENCY: Food and Drug Administration, HHS.

ACTION: Proposed rule.

SUMMARY: The Food and Drug Administration is proposing to amend its regulations governing medical device establishment registration and device listing. The proposed revisions would modify FDA's current regulations at part 807 (21 CFR part 807) to reflect recent statutory amendments to the device registration and listing provisions of the Federal Food, Drug, and Cosmetic Act (FD&C Act). The Food and Drug Administration Amendments Act of 2007 (FDAAA), which was enacted on September 27, 2007, amended section 510 of the FD&C Act by requiring domestic and foreign device establishments to begin submitting their registration and device listing information to FDA by electronic means rather than on paper forms, and also specified the timeframes when establishments are required to submit such information. In accordance with FDAAA, the agency launched FDA's Unified Registration and Listing System (FURLS), and Internet-based registration and listing system. FDAAA requires electronic submission of device registration and listing information unless FDA grants a waiver request.

In addition, this proposal would facilitate FDA's collection of additional registration information from foreign establishments as required by the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Bioterrorism Act). It also would update certain provisions in part 807 to improve the quality of registration and listing information available to FDA. FDA relies on having complete and accurate registration and listing information in order to accomplish a number of important public health objectives.

DATES: Submit written or electronic comments on the proposed rule by June 24, 2010. Submit comments on information collection issues under the Paperwork Reduction Act of 1995 by April 26, 2010, (see the "Paperwork Reduction Act of 1995" section of this document). See sections IX and X of this document for the proposed effective and proposed compliance dates of a final rule based on this document.

ADDRESSES: You may submit comments, identified by Docket No. FDA–2009–N–0114 and RIN number 0910–AF88, by any of the following methods, except that comments on information collection issues under the Paperwork Reduction Act of 1995 must be submitted to the Office of Regulatory Affairs, Office of Management and Budget (OMB) at FAX: 202–395–7285, or e-mail comments to *OIRA_submission@omb.eop.gov*. Please mark your comments to the attention of the FDA desk officer and reference this rule.

Electronic Submissions

Submit electronic comments in the following way:

- Federal eRulemaking Portal: *http://www.regulations.gov*. Follow the instructions for submitting comments.

Written Submissions

Submit written submissions in the following ways:

- FAX: 301–827–6870.
- Mail/Hand delivery/Courier [For paper, disk, or CD–ROM submissions]: Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852.

Instructions: All submissions received must include the agency name and Docket No(s). and Regulatory Information Number (RIN) (if a RIN number has been assigned) for this rulemaking. All comments received may be posted without change to *http://www.regulations.gov*, including any personal information provided. For additional information on submitting comments, see the "Comments" heading of the **SUPPLEMENTARY INFORMATION** section of this document.

Docket: For access to the docket to read background documents or comments received, go to *http://www.regulations.gov* and insert the docket number found in brackets in the heading of this document into the "Search" box and follow the prompts and/or go to the Division of Dockets Management, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852.

FOR FURTHER INFORMATION CONTACT: Theresa McDonald, Center for Devices and Radiological Health (HFZ–307), Food and Drug Administration, 10903 New Hampshire Ave., Silver Spring, MD 20993–0002, 301–796–5823.

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I. Background

We originally published establishment registration regulations for medical devices in the **Federal Register** of September 3, 1976 (41 FR 37458) (proposed rule) and August 23, 1977 (42 FR 42520) (final rule), and device listing regulations in the **Federal Register** of September 30, 1977 (42 FR 52808) (proposed rule), and August 25, 1978 (43 FR 37990) (final rule).

These regulations called for establishment registration and device listing information to be submitted to the Center for Devices and Radiological Health (CDRH) on several paper forms: FDA 2891, Registration of Device Establishment; FDA 2891a, Annual Registration of Device Establishment; and FDA 2892, Device Listing. Once these forms were completed and submitted to FDA, FDA then forwarded them to a data entry contractor who entered the information into FDA's device registration and listing database.

In June 2002, section 321 of the Bioterrorism Act amended section 510(i) of the FD&C Act to require those foreign

establishments who are required to register with FDA to do so by electronic means, and to include additional information identifying certain parties involved in the importation of the foreign establishment's devices into the United States as part of their registration. Subsequently, in October 2002, section 207 of MDUFMA further amended section 510 of the FD&C Act by extending the requirement for electronic submission of registration information to include domestic firms as well as foreign firms. However, when adding these new electronic submission requirements, which appear in section 510(p) of the FD&C Act, Congress chose to delay their implementation so that FDA would have an opportunity to first put systems in place to accommodate the electronic receipt of registration information. This was accomplished by including a requirement in section 510(p) of the FD&C Act for the Secretary of the Department of Health and Human Services (the Secretary) to make a finding that the electronic receipt of registration information was feasible before implementing electronic registration.

As reflected in FDAAA, the most recent legislation establishing changes to FDA's device registration and listing program, FDA has now developed a system that makes the electronic receipt of device registration and listing information feasible. FDAAA amended section 510(p) of the FD&C Act by eliminating the need for a feasibility finding and requiring both establishment registration and device listing information to be submitted using electronic means unless FDA grants a waiver request. In accordance with FDAAA, FDA's Unified Registration and Listing System (FURLS), which is a new Internet-based system, became operational on October 1, 2007. FDA believes this electronic system will ultimately make the process of submitting registration and listing information more efficient for industry and will provide faster access to this information for both FDA and industry.

In addition, the new electronic system will allow FDA to more effectively gather information concerning marketed devices. We rely on having complete and accurate registration and listing information to accomplish a number of important statutory and regulatory objectives. For example, we use registration and listing information to:

- Identify establishments producing marketed medical devices;
- Identify establishments producing a specific device when that device is in short supply or is needed for a national emergency. This information helps us facilitate prompt shipment of devices to the places where they are needed most. For example, during a bioterrorism incident, we could use device listing information to identify establishments that could be helpful in preventing or counteracting the deadly effects of biological weapons; with this information, we could facilitate prompt shipment of the devices as needed;
- Facilitate the recall of devices marketed by owners or operators of device establishments;
- Identify and catalogue marketed devices;
- Administer our postmarketing surveillance programs for devices;
- Identify devices marketed in violation of the law;
- Identify and control devices imported or offered for import into the country from foreign establishments; and
- Schedule and plan inspections of registered establishments under section 704 of the FD&C Act (21 U.S.C. 374).

We also rely on registration and listing information to help us comply with several other statutory provisions. For example, we use this information to generate accurate estimates of the number of businesses that are affected by our rulemaking activities. These estimates help us assess the impact of our regulations on regulated industry, which we are required to do under the Regulatory Flexibility Act of 1980 (Public Law 96–354) (5 U.S.C. 601–612), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (Title II of Public Law 104–121); the Unfunded Mandates Reform Act of 1995 (Public Law 104–4) (2 U.S.C. 1501 *et seq.*); the Paperwork Reduction Act of 1995 (the PRA) (44 U.S.C. 3501–3520); Executive Order 12866 (September 30, 1993); and the Congressional Review Act (section 251 of Public Law 104–121).

Registration and listing information will continue to be used for all of the important public health purposes outlined previously. The electronic submission of registration and listing information allows us to use such information more quickly and effectively to carry out all of the activities described previously.

In addition, electronic submission of registration and listing information furthers the purpose of the Government Paperwork Elimination Act of 1998 (Public Law 105–277, Title XVII) (GPEA). GPEA requires Federal agencies to give persons who are required to maintain, submit, or disclose information, the option of doing so electronically when practicable as a substitute for paper, and to use electronic authentication (electronic signature) methods to verify the identity of the sender and the integrity of the electronic content. We believe that electronic submission of registration and listing information furthers the purpose of this law and makes the registration and listing processes more efficient and effective both for industry and us.

II. Summary of Current Registration and Listing Requirements

A. Summary of Section 510 of the FD&C Act (21 U.S.C. 360)

Section 510 of the FD&C Act contains the statutory requirements pertaining to device registration and listing. Section 510(b), (c), and (d) of the FD&C Act address registration obligations that apply to domestic establishments. Section 510(c) of the FD&C Act includes the requirement for owners or operators to immediately register their establishment "upon first engaging in the manufacture, preparation, propagation, compounding, or processing of * * * device or devices." As clarified in section 510(a)(1) of the FD&C Act, the term "manufacture, preparation, propagation, compounding, or processing" as used in section 510 is intended to be rather broad and also includes "repackaging or otherwise changing the container, wrapper, or labeling of any * * * device package in furtherance of the distribution of the * * * device from the original place of manufacture to the person who makes final delivery or sale to the ultimate consumer or user."

In addition to the initial registration requirement in section 510(c), owners or operators of domestic device establishments are also required to renew their registrations on an annual basis. Prior to FDAAA, section 510(b) provided that such registration had to be completed "[o]n or before December 31 of each year." FDAAA amended the timeframes in section 510(b) and now requires annual registration to be performed during the 3-month period beginning on October 1 and ending on December 31 of each year.

Section 510(d) of the FD&C Act requires an owner or operator that has previously registered an establishment to immediately update his registration information on file with the agency to include any additional establishment that he owns or operates in which he begins the "manufacture, preparation, propagation, compounding, or processing" of a device or devices.

Section 510(i) of the FD&C Act contains certain registration and listing requirements that specifically pertain to

foreign establishments. The owner or operator of a foreign establishment has to register and list with FDA if the establishment is engaged in the "manufacture, preparation, propagation, compounding, or processing of * * * a device that is imported or offered for import into the United States." Section 510(i) specifies that the registration and listing information must be submitted to FDA by electronic means, and also requires the foreign establishments to furnish, as part of their registration, "the name of each importer of [the establishment's] device in the United States that is known to the establishment, and the name of each person who imports or offers for import such * * * device to the United States for purposes of importation." Prior to the passage of FDAAA, section 510(i) required foreign establishments to complete their annual registration "[o]n or before December 31 of each year." FDAAA amended the timeframes in section 510(i) and now requires annual registration to be performed during the 3-month period beginning on October 1 and ending on December 31 of each year.

Section 510(g) of the FD&C Act establishes specific exemptions from registration requirements and permits the Secretary, under section 510(g)(5), to create additional exemptions by regulation where the Secretary finds that registration by those persons is not necessary for the protection of public health.

Under section 510(e) of the FD&C Act, we may assign a registration number to any person or establishment who registers. We may also prescribe a uniform system for the identification of devices intended for human use and require that persons who are required to list their devices do so in accordance with such a system.

Section 510(f) of the FD&C Act is the provision governing the public availability of registration and listing information that has been submitted to FDA in accordance with section 510.

Section 510(j) of the FD&C Act prescribes the requirements for device listing. Section 510(j)(1) requires every person who registers to file, at the time of registration, a list of all devices that are being "manufactured, prepared, propagated, compounded, or processed by him for commercial distribution" and which have not been previously listed by him or her. Section 510(j)(1) further requires that the listing information be prepared and submitted in the "form and manner prescribed by the Secretary." Section 510(j)(2) of the FD&C Act requires registrants to periodically update their listing information. Prior to the passage of FDAAA, registrants were required to update their device listings two times each year, once in June and once in December. As amended by FDAAA, section 510(j)(2) now requires device listing information to be updated only once each year during the period beginning on October 1 and ending on December 31, which is the same 3-month period during which establishments are required to complete their annual registration.

Section 510(p) of the FD&C Act, as amended by FDAAA, requires the electronic submission of device registration and listing information unless the Secretary grants a request for a waiver because use of electronic means is not reasonable for the person requesting the waiver.

On October 8, 2009, FDA published the document "Guidance for Industry and FDA Staff—Implementation of Medical Device Establishment Registration and Device Listing Requirements Established by the Food and Drug Administration Amendments Act of 2007." The purpose of the Guidance is to explain changes in the device registration and listing program that are required by Section 207 of the Medical Device User Fee and Modernization Act of 2002 and the Food and Drug Administration Amendments Act of 2007. Copies of the guidance can be found on the Internet at: *http://www.fda.gov/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/ucm185871.htm*.

B. Summary of Current Registration and Listing Regulations

1. Who Must Register and List Under the Current Regulations?

Under current part 807 (21 CFR part 807) of FDA's regulations, with certain exceptions, owners or operators of establishments that engage in the manufacture, preparation, propagation, compounding, assembly, or processing of a device intended for human use must, in addition to other requirements, register their establishments and submit listing information for each of their devices in commercial distribution. FDA has interpreted the types of establishments that must register and/or list to include, among others, manufacturers, contract manufacturers and contract sterilizers (currently required to register and list only if they also distribute the device commercially on behalf of the party initiating the specifications), specification developers, remanufactures, repackages, re labelers, single-use device (SUD) preprocessors, and initial importers (these parties are currently required to register but need not submit listing information). Foreign device establishments that manufacture, prepare, propagate, compound, process or export a device that is imported or offered for import into the United States also must comply with the registration and listing requirements, including the requirement to identify a U.S. agent. The current regulations provide for all registration and listing information to be submitted to us using paper forms FDA 2891, Registration of Device Establishment; FDA 2891a, Annual Registration of Device Establishment; and FDA 2892, Device Listing, as required by § 807.22.

2. What Are the Registration Requirements Under the Current Regulations?

The existing regulations in part 807 contain various provisions governing the requirements for registration. Among others, those provisions include the following:

- Section 807.21(a) requires owners or operators of establishments entering into the manufacture, preparation, propagation, compounding, assembly, or processing of a device or devices to register their establishment within 30 days after beginning such an activity at their establishment.
- Sections 807.25 and 807.40 describe the information required to be submitted by owners or operators of domestic and foreign establishments as part of their registration. This information includes:
- The names of the registered establishment, its owner or operator, and its official correspondent;
- Contact information for the official correspondent;
- Trade names used by the establishment;
- The types of operations or activities conducted at the establishment; and
- The name and contact information for their designated U.S. agent (applies only to foreign establishments).
- Section 807.21(a) requires owners or operators to renew their establishment's registration on an annual basis in accordance with a schedule specified in the regulations.
- Section 807.35 provides for FDA to assign a permanent registration number to each establishment after reviewing the information provided to us on Form FDA 2891 at the time of the establishment's initial registration.

3. What Are the Listing Requirements Under the Current Regulations?

The listing provisions currently found in part 807 include, among others, the following:

• Owners or operators of establishments must, at the time of registration, submit a list of devices being manufactured or processed at the establishment that are in commercial distribution at that time using forms) FDA 2892 (§ 807.21(a)).

• The device listing information required to be submitted to us under § 807.25(f) includes, but is not limited to the classification name and number for the device (in practice, the product code assigned to the device by FDA is ordinarily provided rather than the classification name and number); the proprietary and common names associated with the device; the name and FDA-assigned identification number of the owner or operator; the name, registration number, and establishment type of all establishments under the joint ownership and control of the owner or operator at which the device is manufactured, repackaged, or re labeled; the number assigned by FDA to an approved application for each device listed that is subject to pre market review under section 505 of the FD&C Act (21 U.S.C. 355) or section 515 of the FD&C Act (21 U.S.C. 360e) (in practice, the owners and operators are also providing 510(k) clearance and Humanitarian Device Exemption (HDE) numbers); the reason for the submission (e.g., represents a new device listing, an update to an existing listing, or the device is being discontinued); and if the listing relates to a previously listed device, as in the case of an update, the initial listing number for the device.

• The current regulations at § 807.30(b) require owners or operators to update their device listing information twice each year during June and December, or at their discretion, at the time the change occurs. Updated information must include, but need not be limited to:

• A list of each device introduced by the registrant for commercial distribution that has not been included in any previously-submitted list;

• All previously-listed devices for which commercial distribution has been discontinued;

• A list of all devices for which a notice of discontinuance was submitted and for which commercial distribution has since that time been resumed; and

• Information about any other material change to listed products, as required under current § 807.30(b).

4. Who Is Not Covered by Registration and Listing Requirements Under the Current Regulation?

Under the current regulations, certain establishments are exempt from the registration and listing requirements set forth in part 807. Section 510(g) of the FD&C Act, which establishes certain exemptions from registration requirements, authorized FDA to exempt additional classes of persons from registration requirements by regulation when we determine that registration by those persons is not necessary for the protection of the public health. (21 U.S.C. 360(g)). These exemptions are reflected in our regulations at § 807.65. Section 807.65 provides an exemption from registration requirements for the following types of establishments:

• A manufacturer of raw materials or components;

• A manufacturer of veterinary devices;

• A manufacturer of common and widely-used laboratory equipment and/or chemical reagents not labeled or promoted for medical use; and

• Carriers whose business it is to transport and deliver devices.

Section 807.65 further exempts from registration requirements the following types of establishments, provided they are domestic establishments:

• Licensed practitioners, including physicians, dentists, and optometrists, who manufacture or otherwise alter devices solely for use in their professional practice;

• Persons who manufacture, prepare, propagate, compound or process devices solely for use in research, teaching, or analysis, and do not introduce such devices into commercial distribution;

• Pharmacies, surgical supply outlets, or other similar retail establishments making final delivery or sale to the ultimate user; and

• Persons who dispense previously-manufactured devices or render services to the ultimate consumer (i.e., patient, physician, layman, etc.), such as a hearing aid dispenser, optician, clinical laboratory, assembler of diagnostic x-ray systems, as well as personnel from a hospital, clinic, dental laboratory, orthoepic or prosthetic retail facility whose primary responsibility to the ultimate consumer is to dispense or provide a service through the use of a previously manufactured device.

Additionally, under current § 807.20(c), establishment registration and device listing requirements do not apply to any person who:

• Manufactures the device for another party who initiated the specifications and distributes the device;

• Sterilizes the device on a contract basis for another party who distributes the device; or

• Acts only as a wholesale distributor and does not manufacture, repackage, process, or re label the device.

5. Do the Current Regulations Permit the Disclosure of Registration and Listing Information?

Section 807.37 of the current regulations addresses the extent to which registration and listing information submitted to us will be available for public disclosure and the procedure for obtaining access to such information. Specifically, that provision states that all registration information submitted by an establishment on forms FDA 2891 and FDA 2891a will be made available for inspection at the CDRH Office of Compliance in Maryland and also at the district office that has responsibility for that establishment. In practice, these documents are no longer kept at the district offices, but can still be requested from the Office of Compliance. Registration data also can be searched and downloaded from CDRH's Web site at *www.fda.gov/cdrh*.

Device listing information submitted on Form FDA 2892 may also be requested as specified in current § 807.37(b). Listing information can also be searched and downloaded from CDRH's Web site. The search and download capabilities of the Web-based database is the method of obtaining registration and listing data that is most often used by the public.

III. Highlights of the Proposed Changes to the Current Registration and Listing Requirements

This proposal would modify the current registration and listing regulations to reflect FDAAA's mandate that device registration and listing be submitted electronically and to facilitate the government's collection of additional registration information as mandated by the Bioterrorism Act. It also would revise certain registration and listing provisions to improve the quality of registration and listing information that will be available to FDA for use in pursuing its important health objectives.

Proposed Changes to the Current Registration and Listing Regulations

We are proposing the following changes to the current registration and listing regulations:

1. Switch to an Electronic Registration and Listing System

The current regulations in part 807 require owners and operators of device establishments to submit their registration and listing information to FDA using paper forms (Forms FDA 2891, FDA 2891a, and FDA 2892). This proposal would update the regulations to conform to the requirement in section 510(p) of the FD&C Act, as amended by

FDAAA, that such information be provided to FDA electronically unless FDA grants a request for a waiver.

As part of the new electronic registration and listing system, each owner or operator establish an account using the FURLS, from which the owner or operator creates and updates his or her establishment registration and device listing information. Information submitted to FDA prior to September 15, 2007, has already been migrated to the new electronic database and thus there is no need for owners or operators to reenter this information.

In accordance with section 510 of the FD&C Act, as amended by sections 222 through 224 of FDAAA, device establishment owners and operators have been using FURLS to submit their establishment registration and device listing information electronically since the system became operational on October 1, 2007. In addition, in accordance with section 510(p), as amended by FDAAA section 224, FDA is granting waivers from the new electronic submission requirements only to those owners or operators for whom electronic registration and listing is not reasonable.

2. Foreign Establishment Registration and Listing Requirements of the Bioterrorism Act

Before its devices will be allowed into the United States, each foreign establishment that is required to register must supply to FDA the registration information required by part 807, including the name and contact information for its U.S. agent. Section 321 of the Bioterrorism Act affected foreign establishment registration in part by amending section 510(i) of the FD&C Act to require, as part of an establishment's registration, the name of each importer of the device that is known to the establishment and the name of each person who imports or offers to import the device into the United States. This proposal would amend part 807 to reflect in our regulations the Bioterrorism Act requirement that foreign establishments whose devices are imported or offered for import into the United States must identify: (1) All importers known to the foreign establishment and (2) the name of each person who imports or offers to import the foreign establishment's device into the United States. Proposed changes to § 807.3 also would add specific definitions for these two new categories of information that need to be submitted by foreign establishments.

On August 29, 2006, FDA issued a proposed rule (71 FR 51276) relating to drugs (including certain blood products) which proposed to revoke exemptions from registration and listing requirements found in §§ 207.40(a) and 607.40(a) (21 CFR 207.40(a) and 607.40(a)) relating to foreign establishments whose drug products enter a foreign trade zone and are then re-exported from the foreign trade zone without having entered U.S. commerce. The same rule also proposed to revoke exemptions in §§ 207.40(b) and 607.40(b) which allow a component of a drug imported under section 801(d)(3) of the FD&Act (or a blood product imported under section 801(d)(4) of the FD&C Act) to be imported or offered for import into the United States even if the component is not listed and manufactured, prepared, propagated, compounded, or processed at a registered foreign establishment. (21 U.S.C. 381(d)(3) and (d)(4)).

Consistent with the revisions proposed to §§ 207.40 and 607.40, and for the reasons discussed in that rule (see 71 FR 51283–51284 and 51324), we are proposing to eliminate the exemption in § 807.40(a) for foreign establishments whose devices enter a foreign trade zone and are re-exported from the foreign trade zone without entering U.S. commerce, and the exemption in § 807.40(c) for devices that are imported under section 801(d)(3) of the FD&C Act (21 U.S.C. 381(d)(3)). We believe that removing the exemptions from registration and listing requirements for devices entering foreign trade zones and for products imported under section 801(d)(3) of the Act is consistent with Congress' desire, as reflected in the Bioterrorism Act, to increase the Nation's ability to prepare for and effectively respond to bioterrorism and other public health emergencies by requiring foreign establishments to provide more, rather than less, information for imported products.

3. Change in Requirements Relating to Contract Manufacturers and Sterilizers

The proposed regulation would amend current part 807 regarding the applicability of registration and listing requirements to contract manufacturers and contract sterilizers. Under the proposed regulation, all contract manufacturers and sterilizers would be required to register their establishment and list their devices. Currently § 807.20(a)(2) states that contract manufacturers who do not put the device into commercial distribution do not have to list those devices. In addition, § 807.20(c)(1) and (c)(2) currently provide that contract manufacturers and sterilizers who do not put a device into commercial distribution do not have to register or list. These two provisions, taken together, have been interpreted as requiring contract manufacturers and sterilizers to register and list only if they distribute the device commercially on behalf of the person initiating the specifications.

FDA relies on having a complete and accurate registration of device establishments and the devices processed at those establishments in order to accomplish a number of important statutory and regulatory objectives. FDA's recent experience with contract manufacturers and contract sterilizers since October 1, 2007, suggests that many of these firms that have voluntarily registered and listed in the past, no longer do so. When such establishments experience a problem, it can have significant impact on the product lines for the one or multiple firms for which it is contracted to provide manufacturing or sterilization services. Knowing which products are manufactured or sterilized at the affected site could facilitate the recall of the impacted devices. FDA also believes that knowing that these manufacturing sites exist would be critical information when a device is in short supply or needed in the event of a national emergency.

We are proposing to modify § 807.20(a)(2) and delete § 807.20(c)(1) and (c)(2) such that all contract manufacturers and contract sterilizers would be required to register their establishments and list their devices regardless of whether they put the device in commercial distribution.

4. Requiring Submission of the FDA Product Code Assigned to a Device Rather Than the Classification Name and Number

Current § 807.25(f)(1) indicates that when listing their devices, registrants need to provide, among other information, the classification name and number of each device. The new electronic system would require exempt devices to be identified by product code rather than by classification name and number. The product code is already requested for such devices. This change to the regulation, therefore, is intended to codify the existing practice.

5. Requiring Submission of the 510(k) or HDE Number for Non-Exempt Device Listings

Current § 807.25(f)(3) requires owners or operators to provide as part of their device listing information the premarket submission number assigned by FDA under section 505 or 515 of the FD&C Act (21 U.S.C. 360j) for approved

devices. FDA also has been requesting owners or operators to identify as part of their device listing information the assigned premarket notification number for a device cleared under section 510(k) of the FD&C Act (i.e., the 510(k) number) or the assigned HDE number for a device approved for marketing under section 520(m) of the FD&C Act. This proposal amends § 807.25(f)(3) (at proposed § 807.25(g)(4)) to include 510(k) numbers and HDE numbers among the types of premarket submission numbers required to be provided as part of the listing information submitted to FDA for non-exempt devices.

Collection of the premarket submission numbers allows FDA to better protect the public health by providing a mechanism FDA can use to follow the total product life cycle of non-exempt medical devices. Having access to this information through the listing process also facilitates the agency's use of information that was collected during premarket review to identify devices by attributes other than the product code that is assigned to the product. This would include information such as whether the device contains materials from animal sources, is an implanted device, and other information that generally is not collected as part of the device listing.

Until FDA began collecting the 510(k) number, it was difficult to determine which products listed under registration and listing requirements were being marketed under a specific premarket notification clearance. At times, the product code assigned to a device during the premarket notification clearance process was not accurately identified when the device was listed. This meant that a device assigned one product code during the 510(k) review process could ultimately be listed with FDA under a different product code once the device was put in commercial distribution.

This lack of a direct link between products on the market and their premarket filings made it difficult for FDA to know which devices that we had cleared were being marketed, and where the devices were being marketed. This change would allow us to better identify, evaluate, and resolve potential problems with marketed devices when public health concerns arise.

Proposed § 807.25(g)(4) would codify the practice of including the 510(k) number when listing a medical device that has gone through premarket clearance or the approved HDE number in the electronic device registration and listing system. This change also would provide FDA with a tool to help ensure that devices that lack a required premarket clearance or premarket approval are not marketed.

6. Identification of a Contact Person to Administer the Electronic System Accounts

Prior to the implementation of FURLS, each owner or operator identified an official correspondent on Forms FDA 2891 and FDA 2891a. The official correspondent was the only person who could supply, delete or change information related to a device establishment and its listings. As a result of the passage of FDAAA, FDA began collecting device registration and listing information using FURLS beginning in October 2007. When using FURLS, an owner or operator needs to identify not only an official correspondent for the establishment but also a contact person for the owner or operator. The contact person is the only person who can administer the owner or operator's user accounts in FURLS.

In instances where owners or operators have only one establishment, they may choose the same person to serve as both the contact person for the user account and the official correspondent for the establishment. For owners or operators with multiple establishments, the contact person for the owner or operator may also serve as the official correspondent for any or all of the owner or operator's establishments. Alternatively, using the accounts management software for FURLS, the owner or operator may create subaccounts in which different official correspondents are identified for each establishment.

Proper control of access to accounts and control of the ability to update an establishment's online information is necessary to avoid errors. Therefore, we are proposing that each owner or operator identify only one contact person within the owner or operator's organization who will be responsible for creating the master account in FURLS for the owner or operator and assigning subaccounts to each establishment, if needed. Once the contact person creates the master account and any needed subaccounts, the official correspondent can then use the accounts to submit the owner or operator's establishment registration and device listing information to FDA.

7. Establishment Operations Will Be Reported Through Device Listing

Currently, owners or operators are required to identify the operations or activities that they conduct at their establishments as part of the registration information required on Forms FDA 2891 and FDA 2891a and also as part of the listing information required on Form FDA 2892. Under the proposed rule, we would require owners or operators to identify the operations or activities their establishments engage in only as part of their device listings. This is because the new electronic system has been designed to automatically migrate the information provided in the device listing to the owner or operator's registration, thus saving the owner or operator from having to provide the same information twice. Because under the new system owners or operators would only have to supply such information once, this change will save time and help avoid inconsistencies between the registration and listing information for a single establishment.

8. Registration Fees

FDAAA section 212 requires that certain medical device establishments pay a registration user fee when they initially register with us and for each annual registration thereafter. Therefore, we are deleting the sentence at the beginning of § 807.20(b) that states, "No registration or listing fee is required."

9. Definition of Restricted Devices

This proposal also would revise the definition of "restricted device" in § 807.3(i) to more accurately reflect the provisions of the FD&C Act that provide us with authority to restrict devices.

IV. Description of the Proposed Rule

We are proposing to amend our establishment registration and device listing regulations in part 807 in order to implement changes that are required by FDAAA, section 321 of the Bioterrorism Act, and section 207 of MDUFMA.

As a result, in this proposal we have revised and re-codified some provisions, added new provisions, and eliminated others. The following discussion of the proposed rule describes the new provisions we would add to part 807 and also the changes we would make to the existing provisions.

A. General

1. What Is the Purpose of the Proposed Changes to Part 807?

Changes we are proposing to the current registration and listing requirements are intended to:

- Improve the accuracy and availability of postmarket medical device information;
- Make submission of the information required by the registration and listing provisions of part 807 easier and faster;
- Comply with the Bioterrorism Act and MDUFMA by implementing an

electronic registration and listing system;

- Comply with the additional information collection requirements of the Bioterrorism Act;
- Eliminate ambiguity and clarify requirements in the current device registration and listing regulations; and
- Link postmarket listing data collection with related premarket data by collecting premarket review numbers assigned by FDA.

2. Who Would Be Affected by the Proposed Changes to Part 807?

The proposed changes to part 807 would impact all device establishments that are required to register their establishments and list their devices with FDA; however, the revised regulation would have the greatest impact on contract manufacturers, contract sterilizers, and foreign establishments.

a. *Contract manufacturers and sterilizers*. The proposed rule would require that all contract manufacturers and contract sterilizers register their establishments and list their devices. Currently, there are two provisions, § 807.20(a)(2) and (c), that address the registration and listing requirements for contract manufacturers and contract sterilizers. Current § 807.20(a)(2) states: "* * * person who only manufactures devices according to another person's specifications, for commercial distribution by the person initiating specifications, is not required to list those devices." Current § 807.20(c) states: "Registration and listing requirements shall not pertain to any person who: (1) Manufacturers devices for another party who both initiated the specifications and commercially distributes the device; (2) sterilizes devices on a contract basis for other registered facilities who commercially distribute the devices. * * *"

These two provisions, taken together have been interpreted to require registration and listing by contract manufacturers or contract sterilizers only when they are the party placing the device into commercial distribution. We are proposing to delete current § 807.20(c)(1) and (c)(2) and, in addition, would revise § 807.20(a)(2) in a manner consistent with section 737(13)(A) of the FD&C Act (21 U.S.C. 379i(13)(A)), a provision added by FDAAA that addresses which types of establishments are subject to device registration user fees. These changes to § 807.20(a) and (c) will have the effect of requiring all contract manufacturers and sterilizers to register and list regardless of whether they commercially distribute the devices. The agency believes this approach to registration and listing for these devices and combination products best enables effective oversight by appropriate agency components. Having all contract manufacturers and sterilizers register and list would provide us with basic information about the entities that make and clean devices. This information would allow us to respond in a more timely and effective fashion in the case of an adverse event, shortage, or other problem associated with one of these establishments. The information would also assist us in our fundamental regulatory activities, such as planning and scheduling inspections.

We recognize that with regard to combination products, this approach to registration and listing may result in registration of the same facility and listing of the same product with more than one agency component. However, we also note the agency is currently working to develop harmonized electronic registration and listing systems within FDA. We anticipate that once these harmonized systems are in place, the agency will be able implement a more streamlined approach to facility registration and product listing for combination products.

(b) Foreign establishments engaged in the manufacture, preparation, propagation, compounding, or processing of a device that is imported or offered for import into the United States are currently required to register and to submit listing information in accordance with section 510 of the FD&C Act and § 807.40 of our regulations. These foreign establishments are also required to designate a U.S. agent, and to provide contact information for that person to FDA.

The revised regulation will codify requirements established by section 222 of FDAAA, which changed the timeframes in section 510(i) of the FD&C Act for annual registration by foreign device establishments to a specific 3-month period each year beginning on October 1 and ending on December 31. It also would codify in part 807 certain requirements established by section 321 of the Bioterrorism Act. The Bioterrorism Act amended section 510(i) of the FD&C Act to require those foreign establishments that have to register with FDA to do so by electronic means, and to include additional pieces of information as part of their registration. The additional information required by section 510(i) includes the name of each "importer of such * * * device in the United States that is known to the establishment," and the name of each "person who imports or offers for import such * * * device to the United States for purposes of importation." As discussed at section IV.A.4 of this document, this proposal also would incorporate, at § 807.3, definitions clarifying these two new categories of information that need to be submitted by foreign establishments.

Most of the provisions in section 321 of the Bioterrorism Act became effective on December 8, 2002, but the effective date of the electronic registration requirement was later delayed by MDUFMA section 207 (which added section 510(p) of the FD&C Act) so that FDA would have an opportunity to put systems in place to accommodate the electronic receipt of registration information. The agency has now developed a system, FURLS, which became operational on October 1, 2007, that makes the electronic receipt of device establishment registration and device listing information feasible.

3. Who Would Be Exempt From Registration and Listing?

We propose no changes to the categories of persons or establishments that are exempt from registration requirements under § 807.65. As discussed in section IV.A.2.a. of this document, however, we are proposing to eliminate the exemption from listing requirements for contract manufacturers under § 807.20(a), and the exemption from registration and listing requirements for contract manufacturers and contract sterilizers under § 807.20(c)(1) and (c)(2). As a result, all contract manufacturers and sterilizers would need to register and list regardless of whether they put the devices into commercial distribution.

For the same reasons as stated in the proposed revisions to part 207 of FDA's regulations addressing drug establishment registration and listing, which were published in the **Federal Register** of August 29, 2006 (71 FR 51276), we are proposing to revoke exemptions in current § 807.40(a) relating to foreign establishments whose devices enter a foreign trade zone and are re-exported from that foreign trade zone without having entered U.S. commerce, and in § 807.40(c) regarding devices that are imported into the United States under section 801(d)(3) of the FD&C Act for further processing and then exported without having been placed on the U.S. market. We propose eliminating these two exemptions because of certain statutory changes that have occurred since the publication of the final rule on foreign establishment registration and listing. Those changes include enactment of the Bioterrorism Act, which reflects Congress' desire to

increase the nation's ability to prepare for and respond effectively to bioterrorism and other public health emergencies and Congressional findings that greater controls over imported products be part of that effort.

4. What Definitions and Interpretations of Terms Would Apply to Part 807?

In proposed § 807.3, we set forth new definitions and interpretations of terms as follows:

a. We are proposing to add a definition for the term Product Code at § 807.3(k) to help describe the identifying information that would have to be submitted when listing a medical device that is exempt from premarket notification requirements. Currently, the product code is a three-letter code used by FDA to identify the generic category of a device. Section 807.25(f)(1) of our regulations currently states that the owner or operator must identify the classification name and number when providing device listing information. In practice, however, CDRH instead has requested and accepted the three-letter product code which can be identified from the Web-based medical device classification database at *http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPCD/classification.cfm*.

b. Proposed § 807.3(v) includes a definition for FURLS, which as stated previously, stands for FDA Unified Registration and Listing System. FURLS is the Internet-based electronic system that owners and operators of device establishments must use to submit device registration and listing information to FDA.

c. As described more fully in section IV.B.3 of this document, this proposal would help to implement the requirement in section 510(i) of the FD&C Act, as amended by the Bioterrorism Act, that a foreign establishment engaged in the manufacture, preparation, propagation, compounding, or processing of a device that is imported or offered for import into the United States provide as part of its registration with FDA identifying information for each importer of such device that is known to the establishment. In proposed § 807.3(x), we are proposing to define the term "importer" to mean a company or individual in the United States that is an owner, consignee, or recipient of the foreign establishment's device that is imported into the United States. We recognize that a foreign establishment may have more than one "importer" and we are proposing to include in this term any owner, consignee, or recipient, even if not the initial owner, consignee, or recipient, of the foreign establishment's device that is imported into the United States. Under this proposal, the term "importer" would not include the consumer or patient who ultimately purchases, receives, or is the end user of the device, unless the foreign establishment ships the device directly to the consumer or patient. We invite comments on our definition of importer, including the scope of the entities included in the definition.

d. Section 510(i) of the FD&C Act, as amended by the Bioterrorism Act, also requires that foreign establishments who are required to register with FDA identify as part of their registration information each "person who imports or offers for import" the establishments' devices to the United States. This requirement, which would be implemented at proposed § 807.41, is discussed further in section IV.B.3 of this document. In addition, we are proposing a separate definition for the term "person who imports or offers for import" at § 807.3(y). As defined, this term would include an agent, broker, or other entity, that the foreign establishment uses to facilitate the importation of its device into the United States. However, consistent with the legislative history of the Bioterrorism Act, the term "person who imports or offers for import" would not include carriers. We invite comments on our proposed definition of the term "person who imports or offers for import."

B. Registration

1. Who Would Be Required To Register?

Section 510(b) of the FD&C Act states that registration requirements apply to owners and operators of establishments engaged in the "manufacture, preparation, propagation, compounding, or processing of medical devices." Section 510(a)(1) of the FD&C Act defines these terms to include "repackaging or otherwise changing the container, wrapper or labeling of any device package in furtherance of the distribution of the device * * *".

The revisions we are proposing would not change the classes of persons required to register, except to specify that all contract manufacturers and sterilizers must register their establishments, regardless of whether they put the device in commercial distribution or instead return it to the specification developer or point of origin.

2. When Would Initial Registration Information Need to Be Provided?

Section 807.21, the provision specifying timeframes for establishment registration, is being renumbered in this proposal to § 807.22. Proposed § 807.22 would retain the requirement that owners or operators must register each establishment no later than 30 calendar days after entering into an activity that triggers registration requirements under part 807.

Under current § 807.40(c), with certain limited exceptions, a foreign owner or operator must register an establishment before a device manufactured at the establishment may be imported or offered for import into the United States. This proposal would not change the timeframe for initial registration by a foreign establishment.

3. What Information Would Be Required for Registration?

Under proposed § 807.25, all owners or operators would need to provide the following information in order to register their establishments:

a. *Name of the owner or operator of each establishment*. Section 807.3(f) defines the owner or operator as the corporation, subsidiary, affiliated company, partnership, or proprietor directly responsible for the activities of the registering establishment. While the requirement to identify the owner or operator of the establishment is not new, we are addressing it here to provide assistance in identifying the owner or operator for medical device registration and listing purposes.

In practice, the owner or operator usually is the entity that has final responsibility over the device establishment, such as the establishment's parent company or corporate headquarters. For most small device manufacturers who conduct their business activities at the same site as their regulated device activities, this typically is the same name and address as that of the registered establishment itself. In other words, for a business that has only one location where all medical device production activities are conducted and where corporate responsibility for those activities resides, the owner or operator name and address information is the same as the establishment information.

This has often been a source of confusion regarding the information that must be submitted for registration and listing. We invite comments and questions about what constitutes the "owner or operator" of a device establishment for purposes of part 807.

b. *Name, trade name(s), and address of each establishment (proposed § 807.25(b))*. This provision is consistent with section 510(c) of the FD&C Act, which requires owners and operators to register the names and place of business of the establishment. There are no

changes being proposed to this requirement in the revised regulation.

c. *Registration number of each establishment*. Section 510(e) of the FD&C Act authorizes us to assign a registration number to any person or establishment who registers. Under § 807.35(a) of our regulations, we currently assign a permanent registration number to each device establishment when that establishment registers for the first time. The proposed regulation would only change the method of delivery of the FDA registration number to the owner or operator. FDA registration numbers are communicated to the registrant by email after we receive the registration information through the electronic device registration and listing system and it has been verified by the appropriate FDA district office. As there is no physical document to validate and return, FDA no longer sends a validated copy of a form back to the registrant by postal mail.

d. *Name, address, telephone and fax numbers, and e-mail address of the official correspondent for each establishment (proposed § 807.25(e))*. In this document, we continue to require information regarding the official correspondent of the establishment because we need a contact person to be responsible for submitting and keeping the establishment's registration and device listing information current, and to facilitate contact between FDA and the owner or operator. Under proposed § 807.25(e), this information must be kept current and any change in this information must be provided to us within 30 calendar days.

e. *Information for foreign establishments only*. With respect to foreign establishments who are required to register their establishment with FDA, we would require under proposed §§ 807.40 and 807.41, that such establishments submit the name, address, telephone and fax numbers, and e-mail address for the following:

- The U.S. agent;
- Each importer of the establishment's device in the United States that is known to the establishment; and
- Each person who imports or offers for import the establishment's device to the United States.

The name, address, and phone number of the United States agent is information that already must be submitted under current § 807.40(c). We are proposing that owners or operators also be required to provide information regarding importers and persons who import or offer for import the foreign establishment's device because of changes made to section 510(i) of the FD&C Act by section 321 of the Bioterrorism Act. Section 510(i), as amended, requires foreign establishments to submit as part of their annual registration, among other things, the name of each "importer" of their device that is known to the foreign establishment and also the name of each "person who imports or offers for import" the foreign establishment's device to the United States. We, therefore, expect the person responsible for providing the registration and listing information on behalf of the foreign establishment to undertake appropriate due diligence in gathering and entering the information, which would include identifying and reporting those importers that others in his or her establishment know of or have reason to know of. In addition to identifying them by name, the proposal would require that the foreign establishment provide the address, telephone and fax numbers, and e-mail address of each importer and each person who imports or offers for import to enable us to contact these persons.

We expect that some of the foreign establishments' "importers" will be parties who also are considered "initial importers" as that term is defined in our current registration and listing regulations at § 807.3(g). Under § 807.3(g), the term initial importer means any importer who furthers the marketing of a device from a foreign manufacturer to the person who makes the final delivery or sale of the device to the ultimate consumer or user, but does not repackage, or otherwise change the wrapper or labeling of the device of device package. Because initial importers are already required to register, the electronic registration and listing system will permit foreign establishments to use a search mechanism built into the system to identify those importers of the foreign establishment's devices that are also initial importers. Foreign establishments providing information for other types of importers such as retail establishments and end users who are not ordinarily required to register with FDA would have to provide the name, address and contact information for each such importer, except they would not need to identify an end user that is either a consumer or patient, unless the foreign establishment ships its product directly to the consumer or patient.

Because foreign establishments may use different importers and persons who import or offer for import for different devices, in order to collect this information efficiently, the agency proposes to have foreign establishments provide this information when they are listing their devices. The electronic system will provide an interface for the foreign establishment to identify each product's importers and persons who import or offer for import on a listing-by-listing basis.

The foreign establishment would not be considered registered until all information required under proposed §§ 807.25, 807.40 and 807.41 is submitted. Foreign establishment registration data collected through the electronic registration and listing system will allow us to accurately identify who is making devices, where they are being made, and where they are going within the United States. Having this information is critically important to the nation's ability to prepare for and effectively respond to public health emergencies, including bioterrorism threats and other public health emergencies.

4. What Are the Proposed Requirements for Reviewing and Updating Registration Information?

This proposal would modify and streamline the requirements associated with updating registration information. Currently, the regulations require that owners or operators submit changes to their establishment registration information on Form FDA 2891a at the time of annual registration, or by letter if the changes occur at other times. Under proposed § 807.22, establishments would access FURLS and review their current registration information online, making changes only where needed. Updating registration information is less time consuming using FURLS because the establishment's current information is easily accessible at all times and only changes to the information already in the system need to be entered into the applicable fields. Previously, the registration and listing forms required that most or all of an establishment's registration and/or device listing information be re-entered on each paper form submitted to FDA.

Some of the specific requirements proposed for updating registration information include the following:

a. *Updates of registration information*. Owners or operators, under proposed § 807.25, would report the following changes no later than 30 calendar days after the change occurs:

- The closing or sale of an establishment;
- Any change in the name or address of an establishment;
- Any change in the name or address of the owner or operator; and
- Any change in the name, address, telephone and fax numbers, or e-mail

address of the official correspondent or the U.S. agent.

We encourage establishments to provide expedited updates as soon as possible after the change occurs, which the new electronic device registration and listing system will facilitate, but no later than 30 calendar days after the change occurs.

b. *Annual review and update of registration information*. Proposed § 807.22 would require that registration information be reviewed and updated annually, during the period beginning on October 1 and ending on December 31, which represents the first 3 months of FDA's fiscal year. This timeframe is consistent with the requirements in section 510(b) and (i) of the FD&C Act as amended by section 222 of FDAAA. Current § 807.21 provides a schedule for the annual registration of establishments during one of four periods of the calendar year (i.e., March, June, August, and November) based on the first letter of the owner or operator's name. Proposed § 807.22 would replace this schedule with the requirement that all owners or operators renew their registration information annually, during the period beginning on October 1 and ending on December 31 of the fiscal year for which they are registering.

All registration information would need to be reviewed and updated each year using FURLS, even when no changes have occurred during the previous year. The phrase "review and update" as used in proposed § 807.22(b) stresses the importance of first reviewing all registration information to determine if any changes have occurred, and then updating the information where needed, or confirming the accuracy of the current information. Under proposed § 807.22, updates must reflect all changes that have occurred since the last update.

When an owner or operator fails to comply with the annual registration or listing requirements, the establishment converts to a "failed to register" or "failed to list" status as applicable. This would include registrants who have not been granted a waiver from electronic registration who attempt to re-register their establishment by submitting a paper-based form or letter. These establishments would retain their failed to register and/or list status until the owner or operator uses the electronic system to review, update, and certify the accuracy of their registration and listing information.

We believe that placing establishments whose owners or operators fail to comply with registration or listing requirements in one or both of these categories, as applicable, is reasonable given the importance of registration and listing information. To increase the nation's ability to prepare for and respond effectively to public health emergencies, including bioterrorism threats and other public health emergencies, it is becoming increasingly important for owners and operators of device establishments to comply with our registration and listing requirements. With accurate registration and listing information, FDA can more quickly identify where particular types of devices, e.g., respirators or blood tubing, are being made and help ensure that they are available as promptly as possible for a public health emergency. Furthermore, taking steps to increase compliance with these requirements is consistent with section 301(p) of the FD&C Act (21 U.S.C. 331(p)), which makes it a prohibited act to fail to register or list in accordance with section 510 of the FD&C Act.

c. *Type of operation*. We are proposing to have owners or operators enter information about the types of operations or activities conducted at each of their establishments only when they are entering listing information. Before the implementation of FURLS, changing the types of operations or activities required updates to both registration and listing data. This has in some instances led to discrepancies between the types of activities being reported on an establishment's registration forms as compared to the activities being reported on their device listing forms.

FURLS automatically keeps an establishment's registration record current and consistent with its listing information by assigning or removing activities to and from the registration record based on the current active listing information for each device. This practice will help to avoid confusion and conflicts between registration and listing information for a single establishment.

d. *How the information would be submitted*. Proposed § 807.21 would require establishments to submit information to us electronically, unless we grant a waiver under proposed § 807.21(b).

e. *Transfer of device establishment ownership*. Under this proposal, information regarding changes to ownership of device establishments would also be submitted using the electronic device registration and listing system. There would be a selection from the main menu that will appear for the device registration and listing system when accessed through FURLS that will prompt the user through the process of submitting all information required to report the transfer of ownership.

C. Listing

1. Who Would Be Required to List Devices?

The changes we are proposing would not change the classes of persons that are required to list devices, except to alter the listing obligations of those contract manufacturers and sterilizers who are currently exempt from listing under § 807.20(a)(2), (c)(1), and (c)(2) because the establishments for whom they make or sterilize devices on a contract basis are the ones who commercially distribute the devices. As stated elsewhere in this document, we are proposing to eliminate this exemption, which will have the effect of requiring all contract manufacturers and contract sterilizers to register and list regardless of who has responsibility for placing the devices into commercial distribution.

Under this proposal, all parties who are required to register would continue to be required to also provide device listings to FDA, with the exception of initial importers. Initial importers currently are not required to submit a device listing for those devices for which the initial importer did not initiate or develop the specifications, or repackage or relabel the device. We are not proposing to change this practice.

2. When Would Listing Information Be Provided?

Under proposed § 807.22(a), at the time an establishment is initially registered, owners and operators would list any device that the establishment manufactures or otherwise puts in commercial distribution. This provision is consistent with section 510(j)(1) of the FD&C Act, which requires, among other things, that every person who registers with the Secretary under section 510(b), (c), (d), or (i) of the FD&C Act must, at that time, provide the Secretary with a list of the devices being manufactured, prepared, propagated, compounded, or processed by that person for commercial distribution.

Proposed § 807.22(a) and (b) also address providing listing information for devices not previously listed and reviewing and updating information for devices that have already been listed. Previously, owners or operators were required to review and update listing information each June and December and submit all material changes to the device listing information that had been previously submitted.

Although registrants may choose to amend their device listing information at any time throughout the year, under proposed § 807.22(a) and (b), owners and operators would be required to review and update their listing information only once per year, during the annual registration period beginning on October 1 and ending on December 31 of each year. In addition, foreign establishments would continue to be required to submit device listings before their devices may be imported or offered for import into the United States.

3. What Listing Information Would Be Required?

The following discussion summarizes the new information that would be required under proposed §§ 807.25, 807.26, and 807.28:

a. The assigned FDA premarket submission number of the approved application or cleared premarket notification for each device listed that is subject to sections 505, 510, 515, or 520 of the FD&C Act, which includes devices that are not exempt from premarket notification and approval. In the case of non-exempt products, owners or operators would be required to identify a product's premarket submission number, that is, the number FDA assigned to the 510(k), premarket approval (PMA) application, product development protocol (PDP), humanitarian device exemption (HDE), or new drug application (NDA). Unlike the previous system, which assigned one listing per product code, under the new electronic system (FURLS) each device with a premarket submission number now constitutes a separate listing and is assigned a unique listing number. In FURLS, when the premarket submission number is entered, the product codes that were assigned to the premarket submission based on the FDA premarket review are automatically displayed. This new system helps establishments ensure that the listed product codes match those that appear on the substantial equivalence notification or on the premarket approval letter.

This change, which would be codified in § 807.25(g)(4), generates more unique listing numbers than the previous system, because individual listings are generated for each product subject to a 510(k), PMA, PDP, HDE, or NDA.

b. *Additional types of information required to be provided by foreign establishments.* With respect to foreign establishments only, for devices manufactured, prepared, propagated, compounded, or processed at the establishment, the establishment must identify and provide contact information for: (1) The U.S. agent, (2) each importer of the foreign establishment's device in the United States that is known to the establishment ("importers"), and (3) each person who imports or offers for import such device to the United States. The requirement for foreign establishments to designate a U.S. agent is already included in the current regulations at § 807.40(b) and this requirement would not change. However, the information regarding importers and persons who import or offer for import currently is not required to be submitted under part 807. Because section 321 of the Bioterrorism Act requires the submission of information about importers and persons who import or offer for import, we are proposing to amend our regulations to conform to the statutory requirements.

In order to make it easier for foreign establishments to provide information about importers and persons who import or offer for import when they are registering and listing with FDA, FURLS includes an interface that allows the foreign establishments to select their importers from the FDA database of registered initial importers, and to enter the names, addresses, and other contact information for any additional importers and persons who import or offer for import (e.g., agents, brokers) who have not previously been entered into the electronic database.

Several of the listing requirements in current §§ 807.25, 807.26, and 807.28 have changed only insofar as how the information would be submitted using FURLS. These requirements include the following:

c. *The current registration number and name of each establishment under the ownership and control of the owner or operator that performs a regulated function to a device.* Proposed § 807.25(g)(1) requires that the owner or operator provide FDA with the registration number(s) for all establishments under his or her ownership or control that perform a regulated function on, to, or for a device. This means the owner or operator does not need to inform FDA of any activity regarding the device that is performed at an establishment that is not under the owner or operator's ownership or control. For example, an owner or operator that develops specifications at one establishment that is under its ownership and control, and then manufacturers the device at another establishment that is also under its ownership and control, must inform FDA about both establishments when listing the device. However, an owner or operator that develops specifications for a device that is then manufactured by another owner or operator's establishment, i.e., an establishment which is not under its ownership and control, must only identify the establishment where the specifications were developed, when submitting listing information. In this case, the owner or operator would not need to identify the manufacturing establishment.

This requirement, while not new, has in the past been the source of some confusion. To avoid further confusion, FURLS has been designed such that an owner or operator can only submit listing information for establishments under its ownership or control. Under FURLS, the owner or operator selects their establishment(s) from a pick list that only includes establishments under the owner or operator's control.

d. *The product code for all listed devices that are exempt from premarket notification and approval, as well as devices put into commercial distribution prior to May 28, 1976.* Under this proposal, owners or operators listing devices that are considered exempt from premarket notification, "pre-amendment" devices, (i.e., devices put into commercial distribution prior to May 28, 1976), or devices intended for export only, would continue to identify an applicable product code for the device at the time of listing. When submitting listing information using Form FDA 2892, the owner or operator had to make the determination of which products could be listed under their product code and did not require an FDA premarket submission number. However, the new electronic system automatically displays only the product codes for which an owner or operator can create an exempt or export-only listing during the listing process, thereby eliminating the possibility of the owner or operator selecting a product code that requires a premarket submission.

e. *The proprietary or brand name(s) under which the device is marketed.* FURLS accommodates entry of as many proprietary or brand names as are needed for all listings. This is a change from the paper-based system which limited the number of characters available for entry of the proprietary or brand names. The design of the FURLS database and Web interface allows entry of as many proprietary or brand names as may be associated with the listing.

f. *Each activity or process that is conducted on, or done to, the device by the listing owner or operator at each establishment shown on the listing, such as manufacturing, manufacturing for export only, repacking, relabeling,*

developing specifications, remanufacturing, SUD reprocessing, contract manufacturing, or contract sterilizing. We are proposing that information about the activities or processes that are performed with respect to a device at each registered establishment such as manufacturing, manufacturing for export only, repacking, relabeling, developing specifications, remanufacturing, single-use device reprocessing, contract manufacturing, or contract sterilizing, be identified as a part of the listing process only. Previously, we required such information to be submitted on the establishment registration form (under "Establishment Types") and on the device listing form. Consequently, at times there were inconsistencies between the two forms, which led to confusion about the activities actually being conducted at a particular device establishment at any given time, especially as companies added new products or discontinued previously-listed products. By limiting the submission of this information to the listing process, the information available to FDA should become more consistent and accurate because FURLS is designed to automatically conform the establishment registration record to reflect any changes made to the device listing information, including any changes in the types of activities or processes performed at the establishment. For example, if an owner or operator lists a product under product code ABC as being manufactured at Establishment 1, and lists another product under product code DEF as being repacked or relabeled at Establishment 1, then Establishment 1's registration would automatically include manufacturing and repacking/relabeling as activities at the establishment. If the owner or operator were to amend its listing information to reflect that it discontinued the product under product code DEF, the registration data for Establishment 1 would automatically be revised to show Establishment 1 as a manufacturing site only.

We expect this will be a more efficient way to collect this information, and should lessen the burden on the owner or operator, who no longer would be required to enter information about the establishment's operations during both the registration and the listing processes. The owner or operator would no longer be responsible for ensuring that the activities identified in their registration record are consistent with those in their listing records because changes made to the activities included on their listing records would automatically update the activities on their registration record.

4. What Are the Proposed Requirements for Reviewing and Updating Listing Information?

Previously, establishments had to enter new or revised listing information on Form FDA 2892 and return the form to FDA. Under this proposal, owners or operators would instead be required to access our electronic device registration and listing system (FURLS), review their current listing information online, and make any changes as needed. Updating listing information is less time-consuming under the proposal because owners or operators are able to access their information at any time, and only need to enter data in the fields where there are changes to listing information. It also eliminates the need to mail the form to FDA, and eliminates the return and re-mailing of listing forms when the information initially provided on the form was incorrect or incomplete. The electronic system has automatic validations and edits built in to help ensure that all listing information is complete and correct.

Under proposed § 807.22(b), during the annual review and update of registration information, establishments would be required to provide original listing information for any device that has not been previously listed, as well as updates to listings for devices that have been previously listed.

Under proposed § 807.22(b)(3), owners or operators would review and update their listing information during the period beginning on October 1 and ending on December 31 of each year. This is consistent with the timeframes set forth in the amendments to section 510(j)(2) of the FD&C Act by section 223 of FDAAA.

D. Electronic Format

1. How Would Registration and Listing Information Be Provided To FDA?

Under proposed § 807.21, all registration and listing information would be provided to FDA through use of our electronic device registration and listing system, FURLS, with the exception of labeling and advertisement information for a device (when submission of this information is appropriate), and information from those owners and operators who are granted a waiver from the requirement to submit information electronically.

To register their establishment and list their devices using FURLS, owners or operators need to do the following:

- Create an account in the FURLS. If owners or operators already have a FURLS account as a food or drug establishment, they would update their existing FURLS account to include access to the device registration and listing system;
- Create subaccounts, as necessary, for the official correspondent for each establishment that is being registered;
- Follow the prompts and the help text provided to enter their establishment registration and device listing information; and
- Certify that the information entered is accurate and complete.

Electronic submission of registration and listing information provides a number of advantages over the paper-based submission process. For example:

- We receive more accurate information than with paper submissions. The information received is more consistent and accurate because FURLS includes validation and automated edits to help provide consistency among the data. This also helps eliminate errors of transcription made when we input paper-based data into our old registration and listing database;
- Both for industry and FDA, electronic transmission of the information is easier and more efficient than the use of paper forms. For example, users submitting information receive onscreen, real-time feedback if the information submitted is incomplete, thereby reducing errors and the time and cost of communicating with FDA. Electronic transmission of the information also significantly reduces the time and cost associated with processing paper forms and communicating with industry about errors found on those forms; and
- The registration and listing information available for search and retrieval, both for FDA and industry, is more accurate and up-to-date. Updates may be made to FURLS in real time as opposed to the paper-based system where submissions could take several weeks to arrive at FDA from foreign establishments, then require another week to 10 days to be screened at our mail facility, forwarded to our data entry contractor, and entered in our current database.

2. How Does the Electronic Device Registration and Listing System Work?

Information that is required from owners and operators is submitted to our electronic device registration and listing system (FURLS) over the Internet. The system has a number of features designed to improve the overall accuracy and verifiability of submitted information, and decrease the burden on owners and operators to comply with

FDA's registration and listing regulations. The system is consistent with conventions found on other government sites. Some key features of the system are: (1) Our electronic device registration and listing system (FURLS) is accessible through our FDA Internet site. To use the Web site, you need access to the Internet using a browser. You could arrange for Internet access through one of many available Internet Service Providers (ISPs).You need an e-mail address so we can send you confirmation of submissions and other related information. This e-mail address could be obtained through the ISP or from other sources; (2) prior to accepting registration and listing information from this online system, we authenticate the source (that is, the owner or operator) providing the data. We authenticate entry into the electronic device registration and listing system by establishing user accounts based on current registration information. We also contacted owners or operators of currently registered establishments to identify the single contact person who is responsible for creating and maintaining the owner or operator's account and creating and maintaining any subaccounts that the owner or operator may require for additional official correspondents if more than one establishment is owned or operated by a single entity; and (3) to register and list electronically and to provide updates to your registration and listing information you would go to our Web site and follow the instructional prompts. You sign onto the system by entering the account number, user name, and password obtained by following the procedures on the FDA Web site and e-mailed and paper-mailed to all current owners or operators describing our electronic device registration and listing system. You are prompted to provide general information about the owner or operator and then specific information about each establishment and device as described in the provisions of proposed part 807. When all of the required information has been provided, the official correspondent is notified electronically that FDA has received the information.

3. Will FDA Provide Training on How to Submit Registration and Listing Information Electronically?

We provide detailed instructions on our Web-sent e-mail and paper mailings to registered establishments explaining FURLS. These materials explain the electronic process for providing registration and listing information, including step-by-step instructions on creating user accounts and entering the information that is required under proposed part 807.

4. What Language Would Be Used to Provide Registration and Listing Information?

All domestic firms already submit registration to us in English and, in this proposal, we would retain the current requirement under § 807.40(c) that foreign establishments also submit their registration and listing information in the English language. While the requirement has not changed, it has been renumbered as § 807.40(d) to accommodate the revisions to part 807 as described in this document.

5. Could the Electronic Format Requirements Be Waived?

Section 510(p) of the FD&C Act, as amended by FDAAA section 224, requires the electronic submission of registration and listing information unless we grant a request for a waiver because the use of electronic means is not reasonable for the person requesting the waiver. Consistent with section 510(p), proposed § 807.21(b) would permit establishments to request waivers from the new electronic submission requirements.

We do not anticipate many waiver requests because the business expenses associated with owning a personal computer, obtaining an e-mail address, and subscribing to Internet access are low. During the first 3 months of operation of the Web-based system, i.e, October through December 2007, we received fewer than 10 requests for waivers from the requirement to submit registration and listing data electronically. As we received data electronically for more than 16,000 establishments for that same period, the waiver requests amount to less than one-tenth of 1 percent of the total number of establishments that have responded.

Under proposed § 807.21(b), we may grant a waiver request upon a showing that use of the Internet to access our Web-based registration and listing system is not reasonable for the person requesting the waiver. This is consistent with the requirement described in section 510(p) of the FD&C Act, as amended by section 224 of FDAAA. Under proposed § 807.21(b), the waiver request must explain why use of the Internet and our electronic registration and listing system is not reasonable for the requestor and must include a telephone number and mailing address where we can contact the person making the request. This information is necessary to contact the requestor and for FDA to determine whether a waiver can be granted. It should be noted, however, that waiver requests stating that it is not possible for the owner or operator to own a computer will probably not be granted since there are other ways to access the Internet. For example, most public libraries have computers with Internet access that can be used, often free of charge, by members of the public.

In those instances when we do grant a request for a waiver, we plan to provide information at that time regarding how the requestor should submit its registration and listing information.

E. Miscellaneous

1. What Are the Proposed Requirements for an Official Correspondent and a U.S. Agent?

Under proposed § 807.25(e) owners or operators that are subject to the registration requirements in proposed part 807 would continue to have to designate an official correspondent for each establishment. The official correspondent would be responsible for:

- Entering and updating all registration and listing information for the establishment in the electronic system or, if the owner or operator has been granted a waiver from using the electronic system, providing all registration and listing information for the establishment to FDA via postal mail;
- Serving as the point of contact with FDA on matters relating to the annual registration of the establishment and all updates of registration information;
- Serving as the point of contact with FDA on matters relating to initial device listings and device listing updates, including discontinuances;
- Maintaining a current list of officers and directors for submission to FDA upon FDA's request; and
- The receipt of pertinent correspondence from FDA directed to and involving the owner or operator and/or any of the owner or operator's establishments. Under proposed § 807.25(e), we are also adding the requirement that each owner or operator provide FDA with the name of a contact person at the owner or operator's offices who will be responsible for identifying the official correspondent for each establishment. The owner or operator contact person will be the official correspondent in the event no one else has been properly designated. The contact person would be responsible for establishing and updating the owner or operator's electronic registration and

listing accounts and all subaccounts that may be necessary.

In addition, each foreign establishment is required under our existing regulations at § 807.40(b) to designate a single U.S. agent. This proposal retains that requirement. The U.S. agent's responsibilities include:

- Helping FDA communicate with the foreign establishment;
- Responding to questions concerning the foreign establishment's devices; and
- Helping us schedule inspections.

We would not object if the same individual serves as both the U.S. agent and the official correspondent for a foreign establishment, or if the same individual serves as the U.S. agent for more than one foreign establishment.

We are not proposing to change the requirement that each foreign establishment be limited to designating only one U.S. agent. We interpret section 510(i) of the FD&C Act as allowing only one U.S. agent for each foreign establishment because section 510(i) refers to the U.S. agent in singular, rather than plural, terms. We also interpret section 510(i) of the FD&C Act as requiring that the U.S. agent must be located in the United States. These provisions are also consistent with the use of "U.S. agent" in the agency's interim final rule entitled "Registration of Food Facilities Under the Public Health Security and Bioterrorism Preparedness Act of 2002" (68 FR 58894 at 58915, October 10, 2003).

Currently, the provisions concerning a U.S. agent are set forth in our regulations at §§ 807.3(r) and 807.40(b). Current § 807.3(r) defines U.S. agent as a person residing or maintaining a place of business in the United States whom a foreign establishment designates as its agent. The definition further states that the term "United States agent" excludes mailboxes, answering machines or services, or other places where an individual acting as the foreign establishment's agent is not physically present. Section 807.40(b) also indicates that the U.S. agent must reside or maintain a place of business in the United States, and adds that if FDA is unable to contact the foreign establishment directly or expeditiously, FDA may provide information to the U.S. agent and this action will be considered as equivalent to giving the same information to the foreign establishment itself.

This proposal would retain the requirements from the existing regulations concerning the U.S. agent.

2. What Legal Status Is Conferred by Registration and Listing?

This proposal would retain provisions in our existing regulations, at §§ 807.35(c) and 807.39, addressing the legal status of registrants and their devices. These provisions indicate that registration of an establishment or listing of a device does not denote approval of the establishment, the device, or other devices of the establishment; nor does it mean that a product may be legally marketed. Any representation that creates an impression of official approval or that a device is approved or is legally marketable because of registration or listing would be misleading and would constitute misbranding under section 502 of the FD&C Act (21 U.S.C. 352).

3. Would the Proposal Require Electronic Submission of Labeling and Advertisements?

Current § 807.31(e) requires owners or operators to submit labeling and in certain cases advertisements or other information for their device when they are specifically requested to do so by FDA. Currently such information, if requested, would be provided to us in paper format. This proposal would give owners or operators from whom copies of labeling or advertisements are requested under § 807.31 (which we are proposing to redesignate as § 807.26) the option of submitting the information to us either in paper format or electronically. In those instances where the owner or operator chooses to submit the requested information electronically, they would do so by email rather than using FURLs. We intend to indicate in public Docket No. 92S–0251 that we are prepared to accept this information in electronic format.

4. What Registration and Listing Information Would Be Made Available for Public Disclosure?

Current § 807.37 pertains to the public availability of registration and listing information. The proposal would revoke the introductory text of current § 807.37(a), which includes a description of the types of forms available for inspection, the addresses at which such forms can be inspected, and the addresses to which requests for verification of registration numbers and requests for locations of registered establishments can be directed. We are proposing to revoke this introductory text because these forms are no longer being used under FURLS. Instead, we intend to continue the current practice of making registration and listing information that is available for public disclosure accessible from our Web site. We expect that the registration and listing information available on the Web under the new electronic system will not change from that which is currently available. This initiative is consistent with the GPEA and also helps to reduce the number of Freedom of Information Act (5 U.S.C. 552) requests we receive for registration and listing information.

5. How Would Part 11 Apply to the Electronic Submission of Registration and Listing Information?

Under part 807 as revised by this proposal, the submission of registration and listing information would be subject to the requirements of part 11 (21 CFR part 11), except for the requirements under § 11.10(b), (c), and (e) and the corresponding requirements under § 11.30.

In the **Federal Register** of March 20, 1997 (62 FR 13430), we published regulations on electronic records and electronic signatures (part 11). Part 11 regulations, among other things, set forth the criteria under which records submitted to us may be submitted in electronic format in lieu of paper records. Section 11.2(b) provides for the submission of electronic records instead of paper records provided the requirements of Part 11 are met and the documents or parts of documents to be submitted have been identified by us in public Docket No. 92S–0251 as being the type of submission we are prepared to accept in electronic format.

Part 11 permits the widest possible use of electronic technology, compatible with our responsibility to promote and protect the public health (62 FR 13430). Part 11 helps to ensure the authenticity, integrity, and, when appropriate, the confidentiality of electronic records. Part 11 also helps to safeguard against the possible repudiation of those records. The controls in subpart B of part 11 are intended to further this purpose.

In the **Federal Register** of September 5, 2003 (68 FR 52779), we announced the availability of a guidance for industry entitled "Part 11, Electronic Records; Electronic Signatures—Scope and Application" (the part 11 guidance). The part 11 guidance explains our current thinking regarding the requirements and application of part 11 and states that we intend to exercise enforcement discretion in the manner specified in the guidance with respect to the validation (§ 11.10 (a)), audit trail (§ 11.10(e) and (k)(2)), record retention (§ 11.10(c)), and copies of records (§ 11.10(b)) requirements of part 11, and any corresponding requirements in § 11.30. In addition, we announced that

we intend to exercise enforcement discretion and do not intend to take (or recommend) action to enforce any part 11 requirements with regard to systems that were operational before August 20, 1997, the effective date of part 11 (commonly known as legacy systems) under the circumstances described in section III.C.3 of the part 11 guidance. The part 11 requirements from which we propose exemptions in this proposal differ from the part 11 requirements for which we intend to exercise enforcement discretion, as described in the part 11 guidance. They differ because the proposed exemptions in this rule are specific to the electronic submission of registration and listing information for devices that would be covered under proposed part 807, whereas the part 11 guidance applies to the maintenance of all electronic records and to all electronic submissions subject to part 11.

With respect to the electronic submission of registration and listing information, as previously noted, we believe, as provided in proposed § 807.25(a), that several of the requirements in subpart B of part 11 are not necessary to further the goals of part 11. Because we control the electronic device registration and listing system (FURLS), certain controls for systems would not apply to the submission of registration and listing information, such as:

- The ability to generate accurate and complete copies of records in both human readable and electronic form suitable for inspection, review, and copying by the agency (§ 11.10(b));
- The protection of records to enable their accurate and ready retrieval throughout the records retention period (§ 11.10(c));
- The use of secure, computer-generated, time-stamped audit trails to independently record the date and time of operator entries and actions that create, modify, or delete electronic records (§ 11.10(e)); and
- The corresponding controls of § 11.30.

You would be exempt from these subpart B controls because FURLS is designed to ensure the authenticity, integrity, and confidentiality of this information in several ways. For example, we would control the database, and you would only be able to enter and/or revise information in your own account. In addition, the database would contain records of registration and listing information, including the history of all changes to those records, and we could generate accurate and complete copies of these records.

With respect to the electronic submission of labeling or advertisements in connection with device listing, we believe, as provided in proposed § 807.26, that the following requirements in subpart B of part 11 are not necessary to further the goals of part 11:

- The validation of systems to ensure accuracy, reliability, consistent intended performance, and the ability to discern invalid or altered records (§ 11.10(a));
- The protection of records to enable their accurate and ready retrieval throughout the records retention period (§ 11.10(c));
- Limiting system access to authorized individuals (§ 11.10(d));
- The use of secure, computer-generated, time-stamped audit trails to independently record the date and time of operator entries and actions that create, modify, or delete electronic records (§ 11.10(e));
- The use of operational system checks to enforce permitted sequencing of steps and events, as appropriate (§ 11.10(f));
- The use of authority checks to ensure that only authorized individuals can use the system, electronically sign a record, access the operation or computer system input or output device, alter a record, or perform the operation at hand (§ 11.10(g));
- The use of device checks to determine, as appropriate, the validity of the source of data input or operational instruction (§ 11.10(h));
- The use of appropriate controls over certain systems documentation (§ 11.10(k)); and
- The corresponding controls of § 11.30.

We are proposing to exempt the electronic submission of labeling and advertisements from these controls for systems because we believe these requirements are not critical to ensure the quality of the labeling and advertisements that would be submitted under this proposed rule and we do not think it is necessary for industry to expend resources on controls that are not necessary to further the goals of part 11.

With regard to labeling and advertising submissions in electronic format, we recognize there are some differences with respect to the exemptions from part 11 requirements provided in this proposed rule (that is, § 11.10(a), (c) through (h), and (k), and the corresponding requirements of § 11.30), and the part 11 requirements set forth in the part 11 guidance for which we intend to exercise enforcement discretion (that is, § 11.10(a) through (c), (e), and (k)(2), and the corresponding requirements in § 11.30). Although this proposal does not provide an exemption from § 11.10(b) for the labeling and advertisements, the part 11 guidance announces that we intend to exercise enforcement discretion with respect to that section in the manner described in the guidance.

If this proposed rule is finalized, we intend to identify in public Docket No. 92S–0251 the registration and listing information and the labeling and advertising information specified previously as types of records that we are prepared to accept in electronic format.

F. Conforming Actions

The proposed changes will not result in changes to any regulations other than part 807.

V. Legal Authority

We have the legal authority to amend our regulations on foreign and domestic establishment registration and listing for human devices. The statutory basis for our authority includes sections 201, 301, 501, 502, 510, 513, 515, 519–520, 701, 704, 801, and 903 of the FD&C Act (21 U.S.C. 321, 331, 351, 352, 360c, 360e, 360i–360j, 371, 374, 381, and 393); and sections 361 and 368 of the Public Health Service Act (42 U.S.C. 264 and 271) (the PHS Act).

Section 510(c) of the FD&C Act requires every person upon first engaging in the manufacture, preparation, propagation, compounding, or processing of a device to immediately register with the Secretary his name, place of business, and the establishment. The provisions in section 510(b) and (d) of the FD&C Act require annual registration and registration of additional establishments, respectively. As amended by section 222 of FDAAA, section 510(b) of the FD&C Act requires that annual registration take place during the period beginning on October 1 and ending on December 31 of each year. Section 510(i) of the FD&C Act, as amended by section 222 of FDAAA, requires any establishment within any foreign country engaged in the manufacture, preparation, propagation, compounding, or processing of a device that is imported or offered for import into the United States, upon first engaging in such activity, to immediately register with the Secretary through electronic means, and thereafter to register annually during the period beginning on October 1 and ending on December 31 of each year. These provisions, together with section 701(a) (among others) of the FD&C Act,

authorize us to require the submission of the registration information specified in the proposal. The information specified in this proposal would help us identify who is manufacturing, repacking, or relabeling devices and where those operations are being performed. In addition, some information (e.g., official correspondent information) would help us communicate with establishments more effectively and schedule inspections more efficiently.

Section 510(j)(1) of the act requires every person who registers to file with the Secretary, at the time of registration, a list of all devices that are being manufactured, prepared, propagated, compounded, or processed by the registrant for commercial distribution. That list must be prepared in the form and manner prescribed by the Secretary and must be accompanied by a copy of labeling (or the label and package insert) and, in some cases, advertising, when requested. Section 510(j)(2) of the FD&C Act, as amended by section 223 of FDAAA, requires each person who registers with the Secretary under this section to report listing information updates once each year during the period beginning on October 1 and ending on December 31 of each year. Listing information gives us a current inventory of marketed devices. These provisions and others of the FD&C Act, together with section 701(a) of the FD&C Act, provide authority for requiring the submission of the listing information set forth in this proposal. The device listing information specified in this proposal would help us: (1) Develop a more current, robust inventory of devices as a counter-terrorism measure; (2) administer our postmarket surveillance programs more effectively; (3) facilitate recalls of products; (4) identify devices in short supply in the event of a national emergency; and (5) identify devices marketed in violation of the FD&C Act.

Section 510(p) of the FD&C Act, as amended by section 224 of FDAAA, requires that registration and listing information be submitted electronically, subject to FDA's grant of waivers to individual requestors who meet the criteria set forth in section 510(p). Electronic receipt of registration and listing information will enable us to shift resources from performing more ministerial tasks, such as data entry, to pursuing important public health objectives such as those described in section I of this document. Electronic receipt of registration and listing information also will help us with the efficient enforcement of the act because we would be able to distinguish situations where there has been noncompliance with registration and listing requirements from situations where there have been no changes in information. The failure to register or list is a prohibited act under section 301(p) of the FD&C Act and the failure to do either renders a device misbranded under section 502(o) of the FD&C Act.

VI. Analysis of Economic Impacts

FDA has examined the impacts of the proposed rule under Executive Order 12866 and the Regulatory Flexibility Act (5 U.S.C. 601–612), and the Unfunded Mandates Reform Act of 1995 (Public Law 104–4). Executive Order 12866 directs agencies to assess all costs and benefits of available regulatory alternatives and, when regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity). The Office of Management and Budget has determined that this proposed rule is a significant regulatory action as defined by the Executive order.

The Regulatory Flexibility Act requires agencies to analyze regulatory options that would minimize any significant impact of a rule on small entities. Because the burdens imposed by this proposed rule are expected to be minor, the agency proposes to certify that the final rule will not have a significant economic impact on a substantial number of small entities.

Section 202(a) of the Unfunded Mandates Reform Act of 1995 requires that agencies prepare a written statement, which includes an assessment of anticipated costs and benefits, before proposing "any rule that includes any Federal mandate that may result in the expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of $100,000,000 or more (adjusted annually for inflation) in any one year." The current threshold after adjustment for inflation is $130 million, using the most current (2007) Implicit Price Deflator for the Gross Domestic Product. FDA does not expect this proposed rule to result in any 1-year expenditure that would meet or exceed this amount.

We contracted with the Eastern Research Group, Inc. (ERG), to collect data, interview industry experts, and estimate the costs and benefits of the proposed rule. The analysis in support of the effects of the proposed rule (ERG Memo) is on file with the Division of Dockets Management. ERG identified several very small impacts, both costs and benefits, associated with this proposed rule. For most of these impacts, ERG found the incremental costs and savings to be so small that it was not a meaningful exercise to generate numeric estimates.[1] ERG was able identify recurring costs associated with this proposed rule, plus additional costs that would not apply to U.S. establishments. After updating ERG's findings with more recent cost information, we find annual costs of $340,000 associated with this proposed rule, and an additional $138,000 that would only affect non-U.S. establishments. We were unable to quantify specific benefits attributable to the proposed rule. However, we believe the ultimate use of electronic registration and listing data, the mandate under the Bioterrorism Act to collect additional pieces of registration data, and the requirement under the Bioterrorism Act and FDAAA that information be submitted to FDA electronically justify taking this action.

A. The Need for Regulation

As discussed elsewhere in this preamble, section 224 of FDAAA amended section 510(p) of the FD&C Act to require establishment registrations and device listings to be submitted to FDA by electronic means unless the Secretary grants a waiver from electronic submission requirements. We currently maintain databases that contain establishment registration and device listing information obtained from owners and operators of device establishments. Prior to FDAAA, these databases relied on paper forms submitted by the owners and operators to us, which were then forwarded by us to a data entry contractor for input into our device registration and listing databases.

Our device registration and listing databases play an important role in our efforts to accomplish many regulatory and statutory objectives. For example, we can use this information to identify device manufacturers to facilitate recalls or information alerts in the case of potential safety concerns. We also use it to plan and conduct inspections, administer postmarket surveillance, generate estimates of the number of businesses that are affected by our rulemaking, and to otherwise exercise competent oversight of the device industry.

The quality and completeness of these databases depends on prompt submission of information and the

[1] ERG memorandum from Cal Franz, et al., September 15, 2008, (hereinafter referred to as ERG Memo), p. 1.

immediate inclusion of the data in our system. Under a paper-based registration and listing system, we were unable to readily verify the accuracy of the information submitted and, in some instances, manufacturers were not timely in informing us of changes. In addition, because we were using physical paper forms, it was possible for information to be mishandled or lost before being added to the system, thereby further reducing the reliability of the databases.

In accordance with FDAAA, the agency began collecting registration and listing information using FURLS, FDA's new Internet-based electronic registration and listing system which became operational on October 1, 2007. The electronic submission of information makes the registration and listing process more efficient for industry and allows us to review and use such information more quickly, thus helping to ensure that medical devices will be safe and effective.

Despite the obvious public health advantages to society of using an electronic device registration and listing system, the private returns alone would not be adequate to move the entire device industry to a new registration and listing format that would meet the requirements of section 510(i) and (p) of the FD&C Act. Because the social benefits are largely external to the firms, the large number of entities operating individually cannot be expected to voluntarily move to a new uniform standard. Few entities would choose to adopt a new format without significant private benefits.

B. Background

ERG examined FDA's databases of registered device establishments and listed devices and estimates that revisions to the existing device registration and listing regulations would affect approximately 29,370 owner-operators of approximately 33,500 registered device establishments, and 89,200 listed devices. Of the roughly 33,500 registered establishments, approximately 19,700 are registered as domestic and 13,800 are registered as foreign.[2]

Under the existing regulations, with certain exceptions, owners or operators of establishments that engage in the manufacture, preparation, propagation, compounding, assembly, or processing of a device intended for human use must, in addition to other requirements, register their establishments and submit listing information for each of their devices in commercial distribution. Foreign device establishments engaged in the manufacture, preparation, propagation, compounding, or processing of a device that is imported or offered for import into the United States must comply with the registration and listing requirements, including the requirement to identify a U.S. agent. Until the recent change to electronic submissions mandated by section 224 of FDAAA, all domestic and foreign registration and listing information was submitted using paper forms.

C. The Proposed Regulation

A major objective of this proposal is to update FDA's regulations at part 807 to reflect the requirement for electronic submission of establishment registration and device listing information as required by FDAAA. A paper-based system of registering and listing is burdensome. It does not facilitate timely updates, which does not allow for the best use of these data in inspections and recalls. We believe that electronic submission of registration and listing information improves the quality and timeliness of information available to FDA. In addition, a system of electronic registration and listing improves the quality and timeliness of information available to health care professionals and consumers. Furthermore, to the extent that these quality improvements to the registration and listing process facilitate device recalls, complement postmarketing surveillance programs, help ensure the safety of imported devices, improve the scheduling and planning of inspections, and otherwise assist the agency in carrying out its statutory and regulatory objectives, there is a broad public health benefit. Moreover, the development and maintenance of high quality databases of information about devices and device establishments would enhance future uses of technology in the delivery of health care. An electronic database that contains current and accurate information about devices could, for example, facilitate the development of technology that would allow for communication among devices, giving them additional functionality and the potential for interoperability.

This proposed regulation would also slightly modify the types of information that would need to be submitted as registration and listing information. However, these modifications would be minor and are generally consistent with achieving a more accurate and useful database of device industry information.

D. Estimated Impacts

ERG reviewed the proposed registration and listing regulation, comparing it to the current provisions, and projected the impacts of the proposed regulation. A memorandum prepared by ERG based on this review identifies eight areas where revisions to the current device registration and listing provisions may affect the cost of compliance.[3] These impacts would stem from provisions associated with:

- The creation of an account on FURLS;
- The requirement for submission of additional information as part of the annual registration process;
- Modifications to requirements relating to registration information updates;
- The requirement for submission of additional information when listing a device;
- Changes relating to the requirement for semiannual review and update of device listing information;
- The waiver from the requirement to register and list by electronic means;
- The proposed elimination of the exemptions from registration and listing requirements for foreign establishments whose devices enter a foreign trade zone and are re-exported from the foreign trade zone without having entered U.S. commerce and the exemption for devices that are imported under section 801(d)(3) of the FD&C Act (import-for-export provision); and
- The proposed elimination of the exemption from registration and listing requirements for contract manufacturers and contract sterilizers who do not commercially distribute the devices.

Because most of the identified regulatory impacts only slightly increase or decrease the costs of registering and listing, sometimes involving offsetting impacts, we present the impacts grouped by the eight impact areas identified previously, as opposed to trying to present the impacts as distinct groups of costs and benefits.

1. Creation of FURLS Accounts

Under the proposed rule, establishments would go through the one-time process of creating a FURLS account. According to ERG, the costs associated with setting up the FURLS account are negligible.[4]

2. Changes to Annual Registration Information

This proposed rule could affect the burden on establishments by changing the information they submit in the annual registration process. ERG found that differences in the information collected currently and under the

[2] See ERG , appendix B, table 1.

[3] ERG memo, p. 3.

[4] ERG memo, p. 5

proposed rule would be minor and should not increase the time spent completing the registration.[5] Some of the additional information is already submitted voluntarily. For example, the e-mail addresses for the establishment's official correspondent and owner-operator, as well as the universal resource locator (URL) for the establishment's Web site, are already being collected. There would be little, if any additional burden for those establishments not currently providing this information. There would be modest savings associated with the annual registration process, as establishments would be able to access and edit registration information online and would no longer have to wait for physical forms to be mailed from FDA, review them, make edits, and mail the forms back to FDA.

As amended by section 321 of the Bioterrorism Act, section 510(i) of the FD&C Act requires foreign establishments whose devices are imported or offered for import to the United States to identify and provide contact information for importers of the establishment's device that are known to the establishment and also those persons who import or offer for import the device into the United States. According to the ERG memo, foreign establishments identifying importers known to them and persons who import or offer for import the establishments' devices would typically be identifying one or two entities of each type with readily available contact information, so the impact would be negligible.[6] OMB Circular A–4 directs us to carefully evaluate new U.S. rules that might act as non-tariff barriers to imported goods. As the burden to these foreign establishments would be quite small and would not have a significant adverse effect on trade, the impact on U.S. consumers from this provision would be negligible.

3. Changes Relating to the Requirement to Update Registration Information

Under proposed § 807.22(b)(2), establishments would be required to update their registration within 30 days if their registration information were to change. Current § 807.26 requires that establishments update registration information for a change in ownership or a change in the location of the establishment. As the proposed rule includes a broader set of circumstances requiring a mandatory update, it has the potential to be slightly more burdensome. Under the proposed rule, however, establishments would provide updates electronically, as opposed to submitting such information to FDA using a paper form as required by current § 807.26. ERG found that the ability to submit updated information through FURLS rather than completing and mailing paper forms would result in a net reduction in administrative burden and, therefore, a cost savings to establishments. ERG did not quantify the amount of the estimated savings, but we feel it would roughly negate any increase in burden from the increased likelihood of a mandatory update.

4. Requirement for Additional Device Listing Information

Under proposed § 807.25, establishments would be required to submit additional information, including 510(k) numbers and HDE numbers among the types of premarket submission numbers submitted to FDA for non-exempt devices. Establishments would also submit all proprietary and brand names under which each device is marketed. Although the agency already collects proprietary or brand names as part of device listings, the device listing form specified for use under the existing regulation has a single block of 80 characters for proprietary and brand names, which may have been restricting the amount of information establishments have been providing. In contrast, establishments using FURLS to list their devices have an unlimited amount of space within which to provide information and therefore could submit more data. According to the ERG memo, device listings would rarely have more than three proprietary or brand names, so the additional information that establishments would be providing under the proposed rule would be limited.[7]

Under proposed § 807.25(g)(4), establishments also would be required to submit 510(k) and HDE numbers for non-exempt devices as part of the listing process. This information has been collected by FDA on a voluntary basis since 2005. It is our experience from processing these forms that most establishments submitting device listings since this practice began in 2005 already provide 510(k) and HDE numbers. Because these establishments already are complying with the proposal, they would not face an additional burden as a result of this new requirement. However, there was an additional burden associated with providing 510(k) and HDE numbers for those devices listed prior to 2005. Because we have already begun to collect information on these devices electronically, much of this one-time burden has already been incurred. Based on a query of non-exempt listings included in FDA's registration and listing database, FDA estimated that 9,300 owners or operators would provide submission numbers for approximately 31,000 device listings. We believe that affected owners or operators needed only a few minutes to look up this information from readily available sources.[8] ERG did not attempt to quantify this very small burden, but noted that the inclusion of the 510(k) number in the device listing would result in significant benefits. Such information would improve our postmarket surveillance efforts by permitting devices to be tracked based on the submission number assigned to the particular device, as opposed to the previous method of tracking based on the reported product codes which did not necessarily correspond to the product codes under which a device was cleared. Also, having the registrant supply the premarket submission number and FDA determine the appropriate product code saves time, as incorrect product codes can lead to delays in listing.

5. Changes Relating to Review and Update of Device Listings

Section 510(j)(2) of the FD&C Act, as amended by section 223 of FDAAA, now requires device listings to be updated once each year during the period beginning on October 1 and ending on December 31. Previously, as reflected in the current registration and listing regulations, registrants had to review and update their device listings on a semiannual basis, during June and December. In the past, FDA has not strictly enforced this requirement but has encouraged establishments to update their listings throughout the year whenever information has changed. Thus, although the required updates would be less frequent and less burdensome, we recognize the potential for a minor impact associated with increased enforcement of an existing requirement. We believe any additional impact would be extremely small, and we do not attempt to quantify it.

6. Requests for a Waiver from Submitting Information Electronically

Under the proposed rule, parties for whom registering and listing by electronic means is not reasonable may request a waiver from FDA. Because one would only need to have access to a

[5] ERG memo, p. 6.

[6] ERG memo, p. 5.

[7] ERG memo, p. 5.

[8] ERG memo, p. 6.

computer, Internet access, and an e-mail address to register and list by electronic means, we do not anticipate that we will receive many requests for waivers.

For the first few months of operation (i.e., October through December 2007) of the Web-based system, , FDA received fewer than 10 requests for waivers from the requirement to submit registration and listing information electronically. As FDA received electronic submissions for more than 16,000 establishments over that period, these requests amount to about 0.06 percent of the total number of establishments that responded.

Based on information taken from our databases as of October 2007, FDA estimated there were 29,370 owners or operators who collectively registered a total of 33,490 device establishments. If 0.06 percent of the 33,490 total device establishments would request waivers from FDA, there would be 20 requests (33,490 x 0.0006). We estimate that the annual burden on these establishments would be an hour of time from a mid-level manager to draft, approve, and mail a letter. Assuming a burden of 20 hours and a labor cost of $41 per hour including benefits, the cost for all affected establishments would be $820 ($41 per hour x 20 hours).[9] This estimate may overstate the actual burden, as we received only nine waiver requests in 2008.

We anticipate a small number of additional firms would enter the device industry over the next several years and would need to list and register. To the extent that a small fraction of these firms would request waivers, there may be small additional costs in the future.

7. Elimination of Exemptions for Some Foreign Establishments

Under current § 807.40(a), foreign establishments are not required to comply with the registration and listing requirements if their device enters a foreign trade zone and is re-exported from that foreign trade zone without having entered U.S. commerce. As previously discussed, the proposed rule would eliminate the exemption from registration and listing requirements for such establishments.

Current § 807.40(c), which states that no device may be imported or offered for import into the United States unless the device is listed and is manufactured, prepared, propagated, compounded, or processed at a registered foreign establishment, also states that this restriction does not apply to a device imported under section 801(d)(3) of the FD&C Act ("import-for-export" provision). As previously discussed, we are proposing to eliminate the exemption from registration and listing requirements for devices imported under section 801(d)(3). This means such devices would have to be listed and the foreign establishments that manufacture these devices would have to register with FDA. ERG estimates that the burden of listing would be 2.5 hours per affected device. Assuming an hourly labor cost of $41 per hour, the cost of this provision to foreign establishments would be $103 per device.

ERG has reviewed the databases maintained by FDA's Division of Import Operations and Policy and found that 1,344 shipments of devices entered the United States under the "import-for-export" provision in 2006.[10] This figure represents approximately 0.13 percent of the device shipments to the United States. If each of these shipments required establishment registration and device listing, the cost to foreign exporters would be less than $138,000 (1,344 shipments x 2.5 hours per shipment x $41/hour). These are one-time costs, as subsequent shipments of the same device would not require an additional registration and listing. ERG concludes foreign establishments may incur future costs if there are shipments of devices not previously listed and assumes the estimated first year cost is incurred annually. We believe future annual costs would be substantially less than $138,000 but we do not attempt to quantify them.

ERG was unable to obtain information on the number of devices and firms affected by the loss of the exemption for devices imported into foreign trade zones. We believe the impact of this loss of exemption on individual foreign firms would be very small, but welcome comment on this issue.

Domestic device establishments would not face a substantial burden as a result of the elimination of these exemptions. As these devices are not intended for U.S. commerce, there would be no impact on the domestic market for these devices. Moreover, based on the small cost per affected device, we believe the elimination of these exemptions would have a negligible impact on U.S. industries doing "import-for-export" and operating in foreign trade zones.

For this analysis, we assume that the foreign establishments that would be losing these exemptions are foreign entities and not merely a foreign presence of a domestic entity. We lack detailed information on these establishments and welcome comment on this issue.

8. Elimination of Registration and Listing Exemptions for Contract Manufacturers and Sterilizers Who Do Not Commercially Distribute the Devices

Under current § 807.20(a)(2), (c)(1), and (c)(2), contract manufacturers and contract sterilizers are exempt from registration and listing obligations if they make or sterilize a device according to another person's specifications for commercial distribution by the person who developed the specifications. This proposed rule would eliminate the exemption from registration and listing for contract manufacturers and contract sterilizers who do not commercially distribute. This means that those contract manufacturers and contract sterilizers that currently do not register or list would be required to do so. Moreover, because there are recurring obligations associated with registration and listing, these firms would bear an additional annual burden.

According to our registration and listing database, as of October 2007, there were 1,304 registered contract manufacturers who had not previously listed any products. Of these 1,304 establishments, 736 re-registered in 2006. We also believe there may be contract manufacturers not registered that would be registering for the first time because of the loss of exemption. We do not know the number of contract manufacturers that would be required to register and list, but for the purposes of this analysis, we estimate that 736 establishments that would need to register and initially list products. We invite comment on this estimate.

Based on the October 2007 estimates, the registration and listing database contains about 89,200 listed devices and approximately 33,500 registered establishments, or about 2.66 devices per establishment. If that ratio were to hold for the estimated 736 affected contract manufacturers, we would expect 1,958 additional device listings under the proposed rule.

Between 1999 and 2006, there was an average of 306 initial contract manufacturer registrations each year. We therefore estimate 306 additional contract manufacturers would initially register in 2008 (for fiscal year 2009) and would also incur costs to list their devices, for a total of 1,042. At 2.66 devices per establishment, this would

[9] We use a mean wage rate of $31.55 for compliance officers in the medical equipment and supplies manufacturing industry and add 30 percent for benefits.

[10] ERG memo, p. 10.

result in 814 additional listings, for a total of 2,772.[11]

According to our registration information, fewer than 160 establishments perform contract sterilizations only. Of these, 116 do not list devices. Our registration and listing database includes 533 listings for 114 contract sterilizers, or about 4.68 devices per establishment. Under the proposed rule, the 116 contract sterilizers who currently register would also have to list. Assuming these contract sterilizers would list 4.68 devices per establishment, this would result in 543 additional listings.

ERG estimates that the process of registration and listing would require 2.5 hours of time per listed device each year.[12] At a labor rate of $41 per hour, including benefits, the cost would be $103 per device or about $270 per contract manufacturing establishment ($103 per listing x 2.66 listings) and $480 per contract sterilizing establishment ($103 per listing x 4.68 listings). Across all affected contract manufacturers, including those registering for fiscal year 2009, the cost would be a recurring $284,000 ($41 per hour x 2.5 hours x 2,772 listings). For contract sterilizers, the cost would be $56,000 ($41 per hour x 2.5 hours x 543 listings). Thus, the impact on contract manufacturers and contract sterilizers would be an annual $340,000 ($284,000 + $56,000). We recognize that we may not be aware of some contract sterilizers that have never registered. We believe there are few if any such firms and do not account for them in our analysis, but invite comment on this issue.

The loss of the exemption for contract manufacturers and sterilizers who do not commercially distribute the devices will not only result in social economic costs, but will also result in transfers associated with the payment of user fees. Contract manufacturers and sterilizers that are required to register will also be required to pay user fees. According to section 212 of FDAAA, the Fiscal Year (FY) 2009 establishment registration fee is $1,851. At that rate, we estimate FY 2009 fees of $2.14 million, $1.93 million paid by the 1,042 contract manufacturers and $215,000 paid by the 116 contract sterilizers.

Table 1 of this document summarizes the projected quantified impacts of this proposed rule. The total annual costs are $340,000. Foreign establishments would face an additional annual burden of $138,000 due to the loss of the exemptions from registration and listing requirements relating to devices entering a foreign trade zone that are later re-exported without having entered U.S. commerce and devices that are imported into the United States under section 801(d)(3) of the FD&C Act. There would also be a transfer of $2.14 million in additional user fees paid by contract manufacturers and sterilizers.

TABLE 1.—PROJECTED IMPACTS OF THE PROPOSED RULE

Establishment Category	No. of Affected Establishments/Devices	Incremental Time	Cost per Hour[1]	Total Annual Cost[3]
Requests for a Waiver from Submitting Information Electronically	20 establishments	1 hr	$41	$820
Foreign establishments shipping to United States under import-for-export and to foreign trade zones	none[2]	2.5 hrs	$41	$0[2]
Elimination of Exemptions for Contract Manufacturers	2,772 devices, 1,042 establishments	2.5 hrs	$41	$284,000
Elimination of Exemptions for Contract Sterilizers	543 devices, 116 establishments	2.5 hrs	$41	$56,000
All other	negligible	--	--	negligible[3]
Total	1,178 establishments 3,315 devices	--	--	$340,000

[1] Average hourly wage for medical equipment and supplies compliance officer, adjusted for benefits.
[2] Provision would not be expected to affect U.S. establishments. An estimated 1,344 foreign establishments would face additional annual costs of $138,000.
[3] Estimated incremental time costs are offset by incremental time savings.

TABLE 2.—ECONOMIC TRANSFERS ASSOCIATED WITH THE PROPOSED RULE

From	To	Description	Cost per Entity	Total Cost
1,042 Contract Manufacturers and 116 Contract Sterilizers	U.S. Government	Establishment Registration Fees	$1,851	$2.14 million

The proposed rule would result in benefits associated with an electronic registration and listing database that would provide more up-to-date and complete information. The electronic registration and listing database system could also support future medical and health information technology initiatives. The proposed rule would increase the efficiency of the registration and listing process by eliminating all or nearly all paper submissions. With registration and listing in an electronic format, we are able to review the submitted information more quickly and can contact submitting firms immediately through email if any additional information is needed. In addition, having a database of registered establishments and listed devices that is more accurate and complete can

[11] We do not follow the assumption in the ERG memo that half of these contract manufacturers would not register and pay user fees.

[12] ERG memo, p. 9.

increase patient safety. For example, an electronic database that includes 510(k) clearance numbers and current product codes for devices would help facilitate timely notification of recalls of certain unsafe devices and prompt identification of the affected manufacturers.

Although the scope of the proposed rule does not extend beyond registration and listing, the resulting high-quality, electronic database would facilitate future uses of technology for the public benefit. A current electronic database of device information could, for example, facilitate the development of future devices utilizing wireless connectivity and the interoperation of such devices with hospital information systems, or with handheld personal digital assistant (PDA)-type clients used by health care providers or those managing hospital inventories.

Additionally, having a paper-based registration and listing system is inconsistent with section 510(p) of the FD&C Act, as amended by section 224 of FDAAA, and might deter the medical device industry and healthcare providers from investing in new initiatives that would make use of electronic device listing and establishment registration data.

E. Regulatory Flexibility Act

The Regulatory Flexibility Act requires agencies to analyze regulatory options that would minimize any significant impact of a rule on small entities. The impact of this proposed rule is almost entirely attributable to the requirement that contract manufacturers and contract sterilizers register and list. We have estimated the impacts on small entities and find that the costs associated with registering and listing would not be a significant burden for even the smallest of contract manufacturers and contract sterilizers. Moreover, failing to remove this exemption for contract manufacturers and sterilizers would reduce the benefits potentially realized from this proposed rule. These benefits would include improving the quality and timeliness of information, facilitating device recalls, complementing postmarket surveillance programs, ensuring the safety of imported devices, and improving the scheduling and planning of inspections. Requiring that contract manufacturers and sterilizers register and list allows for the appropriate oversight of these types of facilities. For other elements of this proposed rule, the costs per entity are very small and we do not believe that this proposed rule would have a significant economic impact on a substantial number of small entities.

As described earlier in this preamble, this proposed rule would revise the agency's regulations at part 807 to make them consistent with the requirement under FDAAA that the agency shift to an electronic registration and listing format. The incremental costs to establishments making this switch to electronic registration and listing are so small as to be difficult to quantify. Certain elements of the proposed rule may be burdensome to some entities, but these incremental burdens are estimated to be extremely small. The cost of submitting a waiver claiming electronic listing and registration to be unreasonable would be an estimated $41. The cost of registering and listing a device because of the loss of the exemptions from registration and listing requirements for devices imported into foreign trade zones or imported under section 801(d)(3) of the FD&C Act is not expected to have an effect on domestic establishments. Other elements of the proposed rule involve the submission of information not currently required but readily available and the estimated cost of compliance would be so small as to be difficult to estimate.

Contract manufacturers and contract sterilizers who do not commercially distribute the devices they make or sterilize would be faced with a new requirement to register and list. We do not know how many of the affected contract manufacturers and contract sterilizers would be categorized as small. As shown in table 1 of this document, we estimate 1,042 affected contract manufacturers and 116 affected contract sterilizers. Our internal databases include some contract manufacturers and sterilizers that have in the past voluntarily registered. A review of the contract sterilizers in this database indicate that many are described in external databases as being part of NAICS code 339113 (Surgical Appliance and Supplies Manufacturing). Because of the specific expertise, capital requirements, and economies of scale associated with contract sterilization, we expect contract sterilizers would have more employees and more revenues per employee than would a typical establishment in this class. Medical device contract manufacturers fit in NAICS code 339112 (Surgical and Medical Instrument Manufacturing). For both of these industry classifications, the U.S. Small Business Administration has defined a small business as one with 500 or fewer employees.[13]

According to the U.S. Census, there are 1,352 establishments in class 339112 with 1,302 of them (96 percent) having fewer than 500 employees.[14] Census information on class 339113 lists 1,845 establishments, with 1,805 of them (98 percent) having fewer than 500 employees.[15] Applying these profiles to our estimated contract manufacturers and contract sterilizers, there would be 1,000 small affected contract manufacturers (96 percent of 1,042) and 114 small affected contract sterilizers (98 percent of 118).

For class 339112 covering contract manufacturers, we consider the smallest establishment group with one to four employees. There are 388 establishments with a total of 839 employees and a total value of shipments of approximately $130 million. Average revenue per employee is approximately $150,000. The average establishment in this group has 2.2 employees and receipts of $331,000. As discussed in section V.I.D of this document, establishment registration user fees are $1,851 for FY 2009. As shown in table 1 of this document, the estimated annual burden of listing a device is 2.5 hours at $41 per hour, or $103. A small contract manufacturer with a single listed device would face an annual burden of $1,851 plus $103, or $1,954, which is 0.59 percent of annual revenues.

Assuming the smallest contract sterilizers have five to nine employees, that particular group in class 339113 has 320 establishments with a total of 2,165 employees and a total value of shipments of approximately $380 million. Revenue per employee is approximately $175,000. The average establishment has 6.8 employees and receipts of $1.2 million. Contract sterilizers would face an annual establishment fee of $1,851 plus a cost of $103 per listed device. A small contract sterilizer with two listed devices would face an annual burden of $1,851 plus $2,057, or 0.17 percent of annual revenues.

[13] U. S. Small Business Administration, "Table of Small Business Size Standards Matched to North American Industry Classification System Codes," August 22, 2008, *http://www.sba.gov/idc/groups/public/documents/sba_homepage/serv_sstd_tablepdf.pdf.*

[14] U.S. Census Bureau, 2002 Economic Census, "Surgical and Medical Instrument Manufacturing: 2002," Table 4, p. 4, released December 2004, *http://www.census.gov/prod/ec02/ec0231i339112.pdf.*

[15] U.S. Census Bureau, 2002 Economic Census, "Surgical Appliance and Supplies Manufacturing," Table 4, p. 4, released December 2004, *http://www.census.gov/prod/ec02/ec0231i339113.pdf.*

A $41 burden associated with a waiver request would be about 0.01 percent of revenues for a small entity with revenues in the hundreds of thousands of dollars. As discussed earlier in this section and in section V.I.D of this document, other impacts associated with this proposed rule are all extremely small. We therefore tentatively conclude that the proposed rule, if issued, would not have a significant impact on a substantial number of small entities. We also believe affected entities currently possess the skills required to comply with the provisions of this proposed rule. FDA requests comment on the issue of whether this proposed rule would have a significant impact on a substantial number of small entities.

FDA considered regulatory alternatives such as not regulating and not requiring registration and listing by contract manufacturers and contract sterilizers who do not commercially distribute devices. As explained earlier in this preamble, the electronic submission of information is mandated under FDAAA. Section A discusses the need to regulate in greater detail. The benefits associated with agency oversight of contract manufacturers and contract sterilizers justify the estimated costs of requiring that they register and list.

VII. Paperwork Reduction Act of 1995

This proposed rule contains information collection provisions that are subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). A description of these provisions is given below with an estimate of the annual reporting and recordkeeping burden. Included in the estimate is the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing each collection of information.

FDA invites comments on: (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.

Implementation of Sections 222, 223, and 224 of the Food and Drug Amendments Act of 2007 (OMB Control No. 0910–0625)—Revision

FDA is proposing to amend its regulations governing medical device establishment registration and device listing. The proposed revisions would modify FDA's current regulations at part 807 to reflect recent statutory amendments to the device registration and listing provisions of the FD&C Act. FDAAA, which was enacted on September 27, 2007, amended section 510 of the FD&C Act by requiring domestic and foreign device establishments to begin submitting their registration and device listing information to FDA by electronic means rather than on paper forms, and also specified the timeframes when establishments are required to submit such information. In accordance with FDAAA, the agency launched FDA's Unified Registration and Listing System (FURLS), an internet-based registration and listing system. FDAAA requires electronic submission of device registration and listing information unless FDA grants a waiver request.

In addition, this proposal would facilitate FDA's collection of additional registration information from foreign establishments as required by the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Bioterrorism Act). It also would update certain provisions in part 807 to improve the quality of registration and listing information available to FDA. FDA relies on having complete and accurate registration and listing information in order to accomplish a number of important public health objectives.

A. Statutory Compliance

To comply with the statutory deadline under the provisions of FDAAA for medical device establishment registration and device listing by electronic means, including waiver provisions, FDA initially obtained a 6-month OMB approval of the collection of information requirements under the emergency processing provisions of the Paperwork Reduction Act (the PRA), and subsequently obtained a 3-year approval of these requirements under the same assigned OMB Control No. 0910–0625. With OMB approval of the collection of information requirements, FDA took several actions: (1) Developed an electronic form "Device Registration and Listing Module," Form FDA 3673 and (2) developed and implemented the guidance entitled "Guidance for Industry and FDA Staff-Implementation of Medical Device Establishments Registration and Device Listing Requirements Established by the Food and Drug Administration Amendments Act of 2007." This guidance among other things explained the recent changes in the device registration and listing program and the process (instructions) for using FURLS, an Internet-based registration and listing system.

B. Transition Process From Paper to Electronic Submission

The information collection requirements for paper submissions were approved under the assigned OMB control number 0910–0387 with the associated Forms FDA 2891, 2891a, and 2892. Upon approval of electronic registration and listing information collection requirements under FDAAA, FDA: (1) Replaced the paper forms FDA 2891, 2891a, and 2892 with the electronic data collection instrument, Form FDA 3673; (2) revised the collection of information 0910–0387 for paper submissions to include only nonregistration and listing paperwork requirement, thereby reducing the annual reporting burden requirements (the registration and listing requirements under FDAAA were updated as a revision to the collection 0910–0625); (3) following notice in a June 17, 2007, letter to firms, shut down the manual data entry system on September 15, 2007, and began using the new electronic system on October 1, 2007; and (4) sent each firm a letter on October 1, 2007, providing account and password information for the new system.

Description: In accordance with the collection of information entitled "Establishment Registration and Device Listing for Manufacturers and Initial Importers of Devices," medical device establishment owners and operators will be required to electronically submit establishment registration and device listing information.

Section 510(c) of the FD&C Act requires owners or operators of domestic establishments upon first engaging in the "manufacture, preparation, propagation, compounding, or processing" of a device or devices in those establishments to immediately register their name and place of business and such establishment. Section 510(a)(1) of the FD&C Act defines the term "manufacture, preparation, propagation, compounding, or processing" to include "repackaging or otherwise changing the container, wrapper, or labeling of any * * *

device package in furtherance of the distribution of the * * * device from the original place of manufacture to the person who makes final delivery or sale to the ultimate consumer or user."

Section 510(a)(2) of the FD&C Act mandates that the term "name" include, among other things, the name of each partner of a partnership, and the name of each corporate officer and director of a corporation. An owner or operator of a registered establishment must also immediately register any additional establishment that he owns or operates in any State and in which he begins the "manufacture, preparation, propagation, compounding, or processing" of a device (section 510(d) of the FD&C Act). An owner or operator of any establishment that engages in these activities must also re-register its establishment once each year during the period beginning on October 1 and ending on December 31 of each year (section 510(b) of the FD&C Act, as amended by FDAAA).

Section 510(i) of the FD&C Act contains certain registration requirements pertaining to foreign establishments (e.g., submission of the name of each importer of the establishment's device in the United States that is known to the establishment, submission of the name of each person who imports or offers for import the establishment's device to the United States for purposes of importation). Section 510(g) of the FD&C Act provides for certain exemptions from the registration requirements. In addition, section 510(p) of the FD&CAct, as amended by FDAAA, requires the electronic submission of device registration and listing information unless the Secretary grants a request for a waiver because use of electronic means is not reasonable for the person requesting the waiver.

Section 510(j)(1) of the FD&C Act requires that every person who registers must, at the time of registration, submit a list of all devices that are being manufactured, prepared, propagated, compounded, or processed by him or her for commercial distribution which have not been previously listed by him or her. This information must be submitted in the form and manner prescribed by the Secretary (section 510(j)(1) of the FD&C Act). Prior to FDAAA, section 510(j)(2) of the FD&C Act required certain changes in listing information to be reported every June and December, including any material changes in information previously submitted under the listing provisions. This information must now be provided only once each year during the period beginning on October 1 and ending on December 31.

Section 510(e) of the FD&C Act permits the Secretary to prescribe a uniform system for the identification of devices intended for human use and may require that persons who are required to list such devices under section 510(j) shall list such devices in accordance with such a system. The disclosure provision in section 510(f) of the FD&C Act requires the Secretary to make available for inspection any registration filed under section 510. Section 510(f) also provides that certain listing information must be exempt from disclosure unless the Secretary finds that such exemption would be inconsistent with protection of the public health.

Complete and accurate registration and listing information is necessary to accomplish a number of statutory and regulatory objectives, such as: Identification of establishments producing marketed medical devices, identification of establishments producing a specific device when that device is in short supply or is needed for national emergency, facilitation of recalls for devices marketed by owners and operators of device establishments, identification and cataloguing of marketed devices, administering postmarketing surveillance programs for devices; identification of devices marketed in violation of the law; identification and control of devices imported into the country from foreign establishments; and scheduling and planning inspections of registered establishments under section 704 of the FD&C Act.

The electronic collection of establishment registration and device listing information from medical device establishment owners and operators also furthers the purpose of several statutes, including: The FDAAA, the Bioterrorism Act, MDUFMA, and GPEA.

Description of Respondents: Owners or operators of establishments that engage in the manufacturing, preparation, propagation, compounding, or processing of a device or devices must register their establishments and submit listing information for each of their devices in commercial distribution. Notwithstanding certain exceptions, foreign device establishments that manufacture, prepare, propagate, compound, or process a device that is imported or offered for import into the United States must also comply with the registration and listing requirements. The total annual estimated burden imposed by this collection of information is 103,536 hours annually.

FDA estimates the burden of this collection of information as follows:

TABLE 3.—ESTIMATED ANNUAL REPORTING BURDEN[1]

21 CFR Section	FDA Form Number	No. of Respondents	Annual Frequency per Response	Total Annual Responses	Hours per Response	Total Hours
807.20(a)[3]	3,673	800	1	800	0.75	600
807.21(a)[3]	3,673	125	1	125	0.5	63
807.21(b)[2]		20	1	20	1	20
807.21(b)[3]		1	1	1	1	1
807.22(a)[3]	3,673	2,566	1	2,566	0.5	1,283
807.22(b)(1)[3]	3,673	29,100	1	29,100	0.75	21,825
807.22(b)(2)[3]	3,673	3,000	1	3,000	0.5	1,500
807.22(b)(3)[3]	3,673	24,870	1	24,870	1	24,870
807.26(e)[3]		100	1	100	1	100

TABLE 3.—ESTIMATED ANNUAL REPORTING BURDEN[1]—Continued

21 CFR Section	FDA Form Number	No. of Respondents	Annual Frequency per Response	Total Annual Responses	Hours per Response	Total Hours
807.34(a)[2]		20	1	20	1	20
807.34(a)[3]		1	1	1	1	1
807.40(b)(2)[3]	3,673	50	1	50	0.5	25
807.40(b)(3)[3]	3,673	1,836	1	1,836	0.25	459
807.41(a)[3]	3,673	11,348	1	11,348	0.5	5,674
807.41(b)[3]	3,673	11,348	1	11,348	0.5	5,674
Total one time burden						40
Total recurring burden						62,075

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.
[2] One Time Burden
[3] Recurring Burden

TABLE 4.—ESTIMATED ANNUAL RECORDKEEPING BURDEN[1]

21 CFR Section	No. of Respondents	Annual Frequency per Recordkeeper	Total Annual Records	Hours per Record	Total Hours
807.25(d)[2]	33,490	1	33,490	.25	8,373
807.26[2]	16,524	4	66,096	.5	33,048
Total					41,421

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.
[2] Recurring burden.

The currently approved reporting and recordkeeping burden for electronic registration and listing under OMB No. 0910–0625 is 71,319. The estimated reporting and recordkeeping burden for electronic registration and listing under the proposed rule is 103,536 hours, an increase of 32,217 hours. This increase is due to an under estimate of the original burden estimate for 0910–0625 and the incremental increase of respondents no longer exempt from these requirements.

Burden estimates are based on recent experience with the existing medical device registration and listing program and the economic analysis provided by ERG. The changes to the actual data collected are, with one exception, very minor. We are assuming that it will take approximately the same amount of time to enter the data online using FURLS as it does to use the portable document format (PDF)-enabled forms that had been used for initial establishment registration prior to FURLS becoming operational in October 2007. Any additional burden associated with creating and using the Web-based system accounts (as shown in table 3 of this document under § 807.21(a)) should be offset by the elimination of the need to re-enter identifying information concerning the establishment or product every time registration or listing information is updated, which was the case when updating such information using the PDF-enabled forms.

The recurring burden for the new data collection under § 807.41 (import-related information provided by foreign companies exporting to the United States) was estimated based on the ERG memo. This report stated that foreign establishments would typically be identifying one or two importers and one or two persons who import or offer for import with readily available contact information.

The estimates for creation of new user accounts under § 807.21(a) are based on the current number of owners or operators, and experience in account creation using the existing FURLS for Food Facility Registration. The estimates for the recurring years assume a similar increase in the number of new owner or operator numbers as were created in FY 2006.

The estimate for § 807.25(d) in table 5 of this document (recordkeeping burden) reflects the requirement that owners or operators keep a list of officers, directors, and partners for each establishment. Owners or operators will need to provide this information only when requested by FDA. However, it is assumed that some effort will need to be expended to keep such lists current.

The requirements shown in table 5 for proposed § 807.26 (renumbered from § 807.31), have not changed based on this revision to the registration and listing regulations. They reflect other recordkeeping requirements for devices listed with FDA, and the requirement to provide these records when requested by FDA. They are based on experience FDA has had with the existing regulation.

This proposed rule also refers to previously approved collections of information found in FDA regulations. These collections of information are subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). The collections of information in § 807.35(b) have been approved under OMB control number 0910–0052. This rule is not going to impact the burden in 0910–0052 that is already accounted for in that information collection.

To further clarify and track how the burden and associated changes for this proposed rule have been accounted for during the transition process from paper to electronic in which the information is

currently submitted by electronic means through FURLS, FDA has developed tables 5 and 6 of this document as follows:

TABLE 5.—REPORTING REQUIREMENTS

21 CFR Section/ OMB Control No. 0910–0387	Section of the 2007 Amendments/ OMB Control No. 0910–0625	21 CFR Section/ NPRM
Paper Format	Electronic Format	Electronic Format
Forms FDA 2891,2891a, and 2892	Form FDA 3673	Form FDA 3673
807.22(a) and 807.40	222	807.22(a)
807.22(b)	223	807.22(b)(3)
807.22(a) and 807.40	224	807.22(b)(1)
807.22(b)	224	807.22(a)
Not reported	224	807.21(b)
Not reported	224	807.21(c)

TABLE 6.—RECORDKEEPING REQUIREMENTS

21 CFR Section/ OMB Control No 0910–0387	Section of the 2007 Amendments OMB Control No. 0910–0625	21 CFR Section/ NPRM
Paper Format	Electronic Format	Electronic Format
Forms FDA 2891,2891a, and 2892	Form FDA 3673	Form FDA 3673
Not reported	222	807.25(d)
807.31	223	807.26

In compliance with the PRA, the agency has submitted the revised information collection provisions of this proposed rule to OMB for review. Interested persons are requested to send comments regarding the information collection to OMB (see **DATES** and **ADDRESSES** sections of this document).

VIII. Environmental Impact

The agency has determined under 21 CFR 25.30(h) that this action is of a type that does not individually or cumulatively have a significant effect on the human environment. Therefore, neither an environmental assessment nor an environmental impact statement is required.

IX. Proposed Effective Date

FDA proposes that any final rule based on this proposal become effective 90 days after its date of publication in the **Federal Register**.

X. Proposed Compliance Dates

The proposed rule does not affect self-executing statutory responsibilities. Those FDAAA provisions establishing registration and listing requirements that are self-executing must be complied with in accordance with the statute and do not depend on this proposed rule becoming final.

XI. Federalism

FDA has analyzed this proposed rule in accordance with the principles set forth in Executive Order 13132. FDA has determined that the proposed rule, if finalized, would not contain policies that would 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. Accordingly, the agency tentatively concludes that the proposed rule does not contain policies that have federalism implications as defined in the Executive order and, consequently, a federalism summary impact statement is not required.

XII. Request for Comments

Interested persons may submit to the Division of Dockets Management (see **ADDRESSES**) written or electronic comments regarding this document. Submit a single copy of electronic comments or two paper copies of any mailed comments, except that individuals may submit one paper copy. Comments are to be identified with the docket number found in brackets in the heading of this document. Received comments may be seen in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

XIII. References

The following references have been placed on display in the Division of Dockets Management (see **ADDRESSES**), and may be seen by interested persons between 9 a.m. and 4 p.m., Monday through Friday. (FDA has verified the Web site addresses, but we are not responsible for any subsequent changes to the Web sites after this document publishes in the **Federal Register**.

1. Bureau of Labor Statistics, May 2008, National Industry-Specific Occupational Employment and Wage Estimates, NAICS 339100—Medical Equipment and Supplies Manufacturing, Occupation (SOC code): (131041) *http://www.bls.gov/oes/current/naics4_339100.htm.*

2. Eastern Research Group memorandum from Cal Franz, Derek Singer, and John Eyraud to FDA, September 15, 2008.

3. Office of Management and Budget, Circular A–4, Regulatory Analysis, Washington, DC, 2003, *http://www.whitehouse.gov/omb/circulars/a004/a-4.pdf.*

List of Subjects in 21 CFR Part 807

Imports, Medical devices, Reporting and Recordkeeping requirements.

Therefore, under the Federal Food, Drug, and Cosmetic Act, and under authority delegated to the Commissioner

of Food and Drugs, it is proposed that 21 CFR part 807 be amended as follows:

PART 807—ESTABLISHMENT REGISTRATION AND DEVICE LISTING FOR MANUFACTURERS AND INITIAL IMPORTERS OF DEVICES

1. The authority citation for 21 CFR part 807 continues to read as follows:

Authority: 21 U.S.C. 321, 331, 351, 352, 360, 360c, 360e, 360i, 360j, 371, 374, 381, 393; 42 U.S.C. 264, 271.

2. Amend § 807.3 by:

a. Adding "and" at the end of paragraph (e)(3);

b. Removing ";and" at the end of paragraph (e)(4) and adding a period in its place;

c. Removing paragraph (e)(5);

d. Revising paragraph (i);

e. Redesignating paragraphs (k) through (s) as paragraphs (l) through (t), respectively; and

f. Adding a new paragraph (k) and adding paragraphs (u) through (y).

The revisions and additions read as follows:

§ 807.3 Definitions.

* * * * *

(i) *Restricted device* means a device for which a requirement restricting sale, distribution, or use has been established by a regulation issued under section 520(e) of the act, by order as a condition of premarket approval under section 515(d)(1)(B)(ii) of the act, or by a performance standard issued in accordance with sections 514(a)(2)(B)(v) and 514(b) of the act.

* * * * *

(k) *Product code* means the code used by FDA to identify the generic category of a device.

* * * * *

(u) *Fiscal year* means the FDA fiscal year, which runs from October 1 through September 30.

(v) *FURLS* means the Food and Drug Administration's Unified Registration and Listing System,

(w) *FDA premarket submission number* means the number assigned by FDA to a premarket device submission, such as a Premarket Approval Application (PMA); Investigational Device Exemption (IDE); Humanitarian Device Exemption (HDE); Investigational New Drug Application (IND); New Drug Application (NDA); or Premarket Notification (510(k)).

(x) *Importer* means, for purposes of this part, a company or individual in the United States that is an owner, consignee, or recipient, even if not the initial owner, consignee, or recipient, of the foreign establishment's device that is imported into the United States. An importer does not include the consumer or patient who ultimately purchases, receives, or uses the device, unless the foreign establishment ships the device directly to the consumer or patient.

(y) *Person who imports or offers for import* means, for purposes of this part, an agent, broker, or other entity, other than a carrier, that the foreign establishment uses to facilitate the import of its device into the United States.

3. Revise § 807.20 to read as follows:

§ 807.20 Who must register and submit a device list?

(a) An owner or operator of an establishment not exempt under section 510(g) of the act or subpart D of this part who is engaged in the manufacture, preparation, propagation, compounding, assembly, or processing of a device intended for human use shall register and submit listing information for those devices in commercial distribution, except that registration and listing information may be submitted by the parent, subsidiary, or affiliate company for all the domestic or foreign establishments under the control of one of these organizations when operations are conducted at more than one establishment and there exists joint ownership and control among all the establishments. The term "device" includes all in vitro diagnostic products and in vitro diagnostic biological products not subject to licensing under section 351 of the Public Health Service Act. An owner or operator of an establishment located in any State as defined in section 201(a)(1) of the act shall register its name, places of business, and all establishments and list the devices whether or not the output of the establishments or any particular device so listed enters interstate commerce. The registration and listing requirements shall pertain to any person who:

(1) Initiates or develops specifications for a device that is to be manufactured by a second party;

(2) Manufactures a device, including an establishment that sterilizes or otherwise makes a device for or on behalf of a specifications developer or any other person;

(3) Repackages or relabels a device;

(4) Reprocesses a single use device that has previously been used on a patient;

(5) Acts as an initial importer as defined in § 807.3(g), except that initial importers are not required to provide device listings for any device for which they did not initiate or develop the specifications for the device or repackage or relabel the device. However, the initial importer shall submit, for each such device, the name and address of the manufacturer. Initial importers shall also be prepared to submit, when requested by FDA, the proprietary name, if any, and the common or usual name of each device for which they are the initial importer;

(6) Manufactures components or accessories that are ready to be used for any intended health-related purpose and are packaged or labeled for commercial distribution for such health-related purpose, e.g. blood filters, hemodialysis tubing, or devices which of necessity must be further processed by a licensed practitioner or other qualified person to meet the needs of a particular patient, e.g., a manufacturer of ophthalmic lens blanks.

(b) Registration or listing does not constitute an admission or agreement or determination that a product is a device within the meaning of section 201(h) of the act.

(c) Registration and listing requirements shall not pertain to any person who acts as a wholesale distributor, as defined in § 807.3(t), and who does not manufacture, repackage, process, or relabel a device.

(d) Owners and operators of establishments or persons engaged in the recovery, screening, testing, processing, storage, or distribution of human cells, tissues, and cellular and tissue-based products, as defined in§ 1271.3(d) of this chapter, that are regulated under the Federal Food, Drug, and Cosmetic Act must register and list those human cells, tissues, and cellular and tissue-based products with the Center for Biologics Evaluation and Research on Form FDA 3356 following the procedures set out in subpart B of part 1271 of this chapter, instead of the procedures for registration and listing contained in this part, except that the additional listing information requirements of § 807.26 remain applicable.

(e) Owners and operators of establishments that manufacture devices licensed under section 351 of the Public Health Service Act as well as licensed biological products used in the manufacture of a licensed device must register and list following the procedures set out in part 607 of this chapter, instead of the procedures for registration and listing contained in this part.

§ 807.22 [Removed]

4. Remove § 807.22.

§ 807.21 [Redesignated as § 807.22]

5. Redesignate § 807.21 as § 807.22.

6. Add new § 807.21 to subpart B to read as follows:

§ 807.21 How to register establishments and list devices.

(a) Owners or operators of establishments that are subject to the registration and listing requirements of this part must provide the following information to us using our electronic device registration and listing system, except as provided in paragraphs (b), (c), and (d) of this section:

(1) Initial establishment registration information as required by §§ 807.22(a) and 807.25;

(2) Updates to registration information as required by § 807.22(b) and 807.25;

(3) Initial device listing information as required by § 807.22(a), 807.25, and 807.28;

(4) Updates to device listing information as required by § 807.22(b), 807.25, and 807.28, including updates to reflect the discontinuance or resumption of the commercial distribution of a previously-listed device as specified at paragraphs (d) and (e) of § 807.28.

(b) If the information under § 807.21(a) cannot be submitted electronically, a waiver may be requested. Waivers will be granted only if use of electronic means is not reasonable for the person requesting the waiver. To request a waiver, applicants must send a letter to the Office of Compliance, Center for Devices and Radiological Health, Food and Drug Administration, 10903 New Hampshire Ave., Building 66, rm. 2621, Silver Spring, MD 20993–0002, that includes the following information:

(1) The name and address of the device establishment(s) to be registered, a contact person for the owner or operator of the establishment, and the telephone number at which that person can be reached. If the establishment has already registered in the past, the letter should also include the owner or operator number, registration number, and any listing numbers previously assigned by FDA for that establishment.

(2) Information about whether the company is an initial importer as defined in § 807.3(g) and, if so, whether it also conducts any other activities or operations relating to devices.

(3) A statement that use of the Internet is not reasonable for the person requesting the waiver, and an explanation of why such use is not reasonable. The statement must be signed by the owner or operator of the establishment, or by a person employed by the owner or operator who is authorized to make the declaration on behalf of the owner or operator.

(c) Those owners or operators who have obtained a waiver from filing registration and listing information electronically should refer to § 807.34 for information on how to submit such information by postal mail.

(d) When additional device listing information (e.g., copies of labeling or advertisements) is requested by FDA as described at § 807.26(e), such information may be submitted by postal mail or electronically by e-mail, but will not be submitted using the FDA electronic device registration and listing system.

7. Revise newly redesignated § 807.22 to read as follows:

§ 807.22 Times for establishment registration and device listing.

(a) *Initial registration and listing.* An owner or operator of an establishment who has not previously entered into an operation described in § 807.20(a) shall register within 30 days after entering into such an operation and submit device listing information at that time.

(b) *Registration and listing updates.* Owners or operators shall review and update all of their establishment registration and device listing information that is on file at FDA, documenting any changes that were not previously reported as follows:

(1) Annual registration for each fiscal year is required for all establishments. Annual registration shall take place during the period beginning on October 1 and ending on December 31 of each fiscal year;

(2) Updates to the registration information as described in § 807.25(b) shall be made within 30 days of any change to such information;

(3) Every fiscal year, during the period beginning on October 1 and ending on December 31, owners or operators shall review and update all of their device listing information that is on file at FDA, reporting any changes or deletions to listings and any new listings that were not previously reported. The accuracy of all information on file must be confirmed each year regardless of whether any changes were made to the owner or operator's list of devices; and

(4) Changes to listing information may also be made at other times, such as when a device is introduced into commercial distribution, when a change is made to a previously-listed device, or when a previously-listed device is removed from commercial distribution.

(c) Failure to submit any of the required information on time, as specified in paragraphs (a) and (b) of this section, will put the establishment in a "failed to register" or "failed to list" status as applicable. The establishment will not be considered active and the establishment registration and device listing information will not appear on the FDA Web site until such time as the owner or operator submits and FDA processes the required information.

8. Revise § 807.25 to read as follows:

§ 807.25 Information required for establishment registration and device listing.

(a) All owners or operators that are subject to the registration and listing requirements of this part shall provide such information to us by using the FDA electronic device registration and listing system, unless granted a waiver from electronic submission in accordance with § 807.21(b). Electronic submissions of registration and listing information must comply with part 11 of this chapter, except for the requirements in § 11.10(b), (c), and (e), and the corresponding requirements in § 11.30. Those owners or operators granted a waiver from electronic submission should refer to paragraphs (c) and (g) of this section and § 807.34 for instructions on how to submit device registration and listing information.

(b) Registration information required to be submitted includes: The name and mailing address of the device establishment; the Web site address of the device establishment, if any; the name, address, phone number, fax number, and e-mail address of the owner or operator; the name, address, phone number; fax number, and e-mail address of the establishment's official correspondent; and all trade names used by the establishment.

(c) Owners or operators who have been granted a waiver from electronic filing must submit the establishment registration information described in paragraph (b) of this section, except for the Web site and e-mail address information, in paper form using the procedures set forth in § 807.34.

(d) Each owner or operator is required to maintain a listing of all officers, directors, and partners for each establishment registered by the owner or operator and to furnish this information to FDA upon request.

(e) For each establishment, an official correspondent must be designated by the owner or operator to serve as a point of contact with FDA on matters relating to the registration of device establishments and the listing of device products. Each owner or operator shall also provide FDA with the name of a contact person at the owner or operator's offices who will be responsible for identifying the official correspondent for each establishment. The owner or operator contact person

will be the official correspondent in the event no one else has been properly designated. The official correspondent is responsible for:

(1) Providing FDA with all required registration and listing information electronically unless a waiver from electronic submission has been granted in accordance with § 807.21(b) ;

(2) Receiving all correspondence from FDA concerning registration and listing;

(3) Supplying, when requested by FDA, the names of all officers, directors, and partners; and

(4) Receiving communications from FDA by e-mail, or by postal mail if the owner or operator has been granted a waiver from the requirement to file registration and listing information electronically.

(f) The designation of an official correspondent does not in any manner affect the liability of the owner or operator of the establishment or any other individual under section 301(p) or any other provision of the act.

(g) Device listing information must be submitted to FDA electronically unless a waiver from electronic submission has been granted in accordance with § 807.21(b). Owners or operators who have been granted a waiver must submit the required device listing information, including information required by this paragraph, § 807.28, and any listing information requested by FDA under § 807.26(e), in paper form using the procedures set forth in § 807.34. The information required for each device listed includes:

(1) The current registration number and name of each establishment under the ownership and control of the owner or operator where the device is manufactured, repackaged, relabeled, or otherwise processed, or where specifications are developed.

(2) The product code for each device that is exempt from premarket notification and approval or which was in commercial distribution prior to May 28, 1976.

(3) The proprietary or brand name(s) under which each device is marketed.

(4) The FDA-assigned premarket submission number of the approved application, cleared premarket notification, or approved humanitarian device exemption for each device listed that is subject to sections 505, 510, 515, or 520 of the act, which includes devices that are not exempt from premarket notification and approval.

(5) Each activity or process that is conducted on or done to the device at each establishment, such as manufacturing, repacking, relabeling, developing specifications, remanufacturing, single-use device reprocessing, contract manufacturing, contract sterilizing, or manufacturing for export only.

§ 807.26 [Removed and Reserved]

9. Remove and reserve § 807.26.

§ 807.31 [Redesignated as § 807.26]

10. Redesignate § 807.31 as § 807.26.

11. Amend newly redesignated § 807.26 by adding paragraph (f) to read as follows:

§ 807.26 Additional listing information.

* * * * *

(f) Labeling, advertisements, and other information to be submitted upon request in accordance with paragraph (e) of this section may be submitted by postal mail or electronically by e-mail, but will not be submitted using the FDA electronic device registration and listing system. Electronic submissions of such information must comply with part 11 of this chapter, except for the requirements in § 11.10 (a), (c) through (h), and (k), and the corresponding requirements in § 11.30. The information provided in electronic format must be in a form that we can process, review, and archive.

§ 807.30 [Redesignated as § 807.28]

12. Redesignate § 807.30 as § 807.28.

13. Revise newly redesignated § 807.28 to read as follows:

§ 807.28 Updating device listing information.

(a) Updating of device listing information is required when an additional establishment begins to engage in any of the activities described in § 807.3(d) with respect to a listed device, such as manufacturing, developing specifications, repackaging, relabeling, or otherwise processing the device. Updating of the listing is also required when an establishment begins performing another activity on or to the device, or ceases to perform an activity on or to the device that had previously been identified on the device listing.

(b) An owner or operator shall create a new device listing using the FDA electronic device registration and listing system:

(1) When introducing into commercial distribution an exempt device identified with a product code that is not currently listed by the owner or operator; or

(2) When introducing into commercial distribution a non-exempt device with an FDA premarket submission number that is not currently listed by the owner or operator.

(c) All device listings for foreign establishments must be submitted before the device may be imported or offered for import into the United States.

(d) An owner or operator who discontinues commercial distribution of a device shall discontinue the device listing using the FDA electronic device registration and listing system. A device listing is considered discontinued if:

(1) All devices under an exempt product code have been discontinued or

(2) All devices associated with an FDA premarket submission number have been discontinued.

(e) If commercial distribution of a discontinued device is resumed, the owner or operator must reactivate the previously-discontinued listing using the electronic device registration and listing system. Any changes to the listing information for the product that is the subject of the listing such as a new establishment, new activity, or new proprietary name must be made using the electronic device registration and listing system at the time the listing is reactivated.

(f) FDA will assign one listing number for all devices exempt from premarket notification requirements under a single product code. For products not exempt from premarket notification requirements, a single listing number will be assigned by FDA for each FDA premarket submission number.

14. Add § 807.34 to subpart B to read as follows:

§ 807.34 Summary of requirements for owners or operators granted a waiver from submitting required information electronically.

(a) For initial registration and listing, owners or operators who have been granted a waiver from electronic filing using the procedures set forth in § 807.21(b) must send a letter containing all of the registration and listing information described in §§ 807.22, 807.25, (and § 807.26 when such information is requested by FDA), at the times described in § 807.22, to: The Office of Compliance, Center for Devices and Radiological Health (HFZ–308), Food and Drug Administration, 10903 New Hampshire Ave., Building 66, room 3521, Silver Spring, MD 20993–0002.

(b) As specified in § 807.22(b)(1) and (b)(3), all owners or operators shall update their establishment registration and device listings annually during the period beginning on October 1 and ending on December 31 of each fiscal year.

(c) Failure to submit any of the required information on time, as specified in § 807.22(a) and (b), will put the establishment in a "failed to register" or "failed to list" status as applicable.

The establishment will not be considered active and the establishment registration and device listing information will not appear on the FDA Web site until the required information is submitted to and processed by FDA.

15. Amend § 807.35 by revising paragraphs (a) and (b) to read as follows:

§ 807.35 Notification of registrant.

(a) FDA will assign each device establishment a permanent registration number after verifying the initial establishment registration information that has been submitted. The owner or operator of the establishment will also be assigned an identifying number. Both numbers will be sent to the official correspondent by e-mail, or by postal mail if the owner or operator has been granted a waiver from the requirement to file registration and listing information electronically.

(b) Owners or operators of device establishments who also manufacture or process biological products (including devices licensed under section 351 of the Public Health Service Act) or drug products at the same establishment must also register and list those products under part 607 or part 207 of this chapter, as appropriate. Registration and listing for human blood and blood products, devices licensed under section 351 of the Public Health Service Act, and licensed biological products used in the manufacture of a device licensed under section 351 of the Public Health Service Act, are subject to part 607 of this chapter; registration and listing for all other drug products (including other biological products that are also regulated as drug products) are subject to part 207 of this chapter.

* * * * *

16. Revise § 807.37 to read as follows:

§ 807.37 Public availability of establishment registration and device listing information.

Establishment registration and device listing information is available for public inspection in accordance with section 510(f) of the act and will be posted on the FDA Web site. Requests for information by persons who do not have access to the Internet should be directed to the Office of Compliance, Center for Devices and Radiological Health (HFZ–308), Food and Drug Administration, 10903 New Hampshire Ave., Building 66, rm. 3521, Silver spring, MD 20993–0002. In addition, there will be available for inspection at each of the Food and Drug Administration district offices the same information for firms within the geographical area of such district offices. Upon request, verification of a registration number or location of a registered establishment will be provided.

17. The heading of subpart C is revised to read as set forth below:

Subpart C—Procedures for Foreign Device Establishments

18. Amend § 807.40 by revising paragraphs (a) and (c) and by adding paragraph (d) to read as follows:

§ 807.40 Establishment registration and device listing for foreign establishments importing or offering for import devices into the United States.

(a) Any establishment within any foreign country engaged in the manufacture, preparation, propagation, compounding, or processing of a device that is imported or offered for import into the United States shall register such establishment and list such devices using the FDA electronic device registration and listing system in conformance with the procedures in this section, § 807.41, and subpart B of this part. The official correspondent for the foreign establishment shall facilitate communication between the foreign establishment's management and representatives of the Food and Drug Administration for matters relating to the registration of device establishments and the listing of device products.

* * * * *

(c) No device may be imported or offered for import into the United States unless it is the subject of a device listing as required under subpart B of this part and is manufactured, prepared, propagated, compounded, or processed at a registered foreign establishment; however, this restriction does not apply to devices imported or offered for import under the investigational use provisions of part 812 of this chapter.

(d) The establishment registration and device listing information shall be in the English language.

19. Add § 807.41 to subpart C to read as follows:

§ 807.41 Identification of importers and persons who import or offer for import.

(a) Upon initial registration, annually, and at the time of any changes, each foreign establishment required to register and list as provided in § 807.40(a) must, using the FDA electronic device registration and listing system, submit the name, address, telephone and fax numbers, e-mail address, and registration number, if any has been assigned, of any importer (defined in § 807.3(x)) of the establishment's devices that is known to the foreign establishment. The foreign establishment must also specify which of the establishment's listed products each importer receives from the foreign establishment.

(b) Upon initial registration, annually, and at the time of any changes, each foreign establishment required to register and list as provided in § 807.40(a) must, using the FDA electronic device registration and listing system, submit the name, address, telephone and fax numbers, e-mail address, and registration number, if any has been assigned, of each person who imports or offers for import the establishment's devices into the United States. The term "person who imports or offers for import," which is defined in § 807.3(y), includes agents, brokers, or other parties used by the foreign establishment to facilitate the import of its device into the United States.

(c) For each individual or organization identified by the foreign establishment under paragraphs (a) and (b) of this section, the foreign establishment must submit to FDA electronically the current FDA premarket submission number (e.g., PMA, 510(k), HDE, NDA) and any other identifying information that is known to the establishment for each device being imported or offered for import by the named individuals or organizations.

Dated: March 22, 2010.

Leslie Kux,

Acting Assistant Commissioner for Policy.

[FR Doc. 2010–6662 Filed 3–25–10; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF JUSTICE

Drug Enforcement Administration

21 CFR Part 1308

[Docket No. DEA–333]

Schedules of Controlled Substances: Placement of Carisoprodol Into Schedule IV; Announcement of Hearing

AGENCY: Drug Enforcement Administration (DEA), Department of Justice.

ACTION: Notice of hearing on proposed rulemaking.

SUMMARY: This is notice that the Drug Enforcement Administration (DEA) will hold a hearing with respect to the proposed placement of carisoprodol in schedule IV of the Controlled Substances Act (21 U.S.C. 801, *et seq.*). The control of carisoprodol was initially proposed in a Notice of Proposed Rulemaking published in the **Federal**

Register on November 17, 2009 [74 FR 59108].

DATES: Interested persons desiring to participate in this hearing must provide written notice of desired participation as set out below, on or before April 26, 2010.

The hearing will commence on May 4, 2010 at 10 a.m. at 600 Army Navy Drive, Arlington, VA 22202.

ADDRESSES: To ensure proper handling of notification, please reference "Docket No. DEA–333" on all correspondence. Written notification sent via regular or express mail should be sent to Hearing Clerk, Office of the Administrative Law Judge, Drug Enforcement Administration, 8701 Morrissette Drive, Springfield, VA 22152.

FOR FURTHER INFORMATION CONTACT: Hearing Clerk, Office of the Administrative Law Judge, Drug Enforcement Administration, 8701 Morrissette Drive, Springfield, VA 22152, Telephone (202) 307–8188.

SUPPLEMENTARY INFORMATION:

Background

On November 17, 2009, the Drug Enforcement Administration (DEA) published a Notice of Proposed Rulemaking (NPRM) in the **Federal Register** (74 FR 59108) to place the substance carisoprodol into schedule IV of the Controlled Substances Act (CSA) (21 U.S.C. 801, *et seq.*). The NPRM stated that, if this scheduling action were finalized, carisoprodol would be subject to the regulatory controls and criminal sanctions of schedule IV, as are applicable to the manufacture, distribution, dispensing, importation, and exportation of carisoprodol and products containing carisoprodol.

The NPRM invited interested parties to submit comments, objections, and requests for hearing on or before December 17, 2009. The DEA received 18 comments in response to the NPRM. Seventeen commenters strongly supported the control of carisoprodol. These commenters included health care providers, an organization representing pharmaceutical manufacturers and distributors, State regulatory agencies and State Departments of Health officials, law enforcement entities and one pain management association.

According to these commenters, carisoprodol products are being diverted, abused, misused, and sold on the street and from Internet sites without legitimate prescriptions. Commenters indicated carisoprodol is being abused with other controlled drugs such as opioids. There are incidences of pain patients addicted to carisoprodol.

While 17 comments were supportive of control, one commenter requested a hearing on the issue. This commenter stated that it believes "that the NPRM and the associated documentation do not provide substantial evidence to support the proposed scheduling of carisoprodol." Additionally, the petitioner stated that "the proposal gives inadequate weight to the negative impact on patient care of scheduling carisoprodol." In requesting a hearing, the commenter stated its intention to present factual information concerning the relative potential for abuse of carisoprodol, and expert opinion concerning the significance and reliability of data cited in the NPRM and associated materials.

All comments received in response to the NPRM are part of the administrative record and will be considered by DEA in determining whether to finalize the rule placing carisoprodol into schedule IV.

Hearing Notification

In response to this request, DEA is convening a hearing on the NPRM. Accordingly, notice is hereby given that a hearing in connection with this proposed scheduling action will commence on May 4, 2010, at 10 a.m. at the Drug Enforcement Administration, 600 Army Navy Drive, Arlington, VA 22202 and will continue until all interested persons, as that term is defined in 21 CFR 1300.01(b)(19), desiring to participate, who have given notice of such desire as prescribed below, have been heard. The hearing will be conducted pursuant to the provisions of 5 U.S.C. 556 and 557, and 21 CFR 1308.41–1308.45, and 1316.41–1316.68.

Every interested person desiring to participate in the hearing shall file a written notice of intention to participate, in duplicate, with the Hearing Clerk, Office of the Administrative Law Judge, Drug Enforcement Administration, 8701 Morrissette Drive, Springfield, VA 22152, on or before April 26, 2010. Each notice of intention to participate must be in the form prescribed in 21 CFR 1316.48. The commenter who requested the hearing is hereby directed to file with the Administrative Law Judge a notice of its continued intention to participate in the hearing and to state with particularity its interest in the proceeding.

Dated: March 21, 2010.

Michele M. Leonhart,

Deputy Administrator.

[FR Doc. 2010–6763 Filed 3–25–10; 8:45 am]

BILLING CODE 4410–09–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 1

[REG–134235–08]

RIN 1545–BI28

Furnishing Identifying Number of Tax Return Preparer

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Notice of proposed rulemaking.

SUMMARY: This document contains proposed regulations under section 6109 of the Internal Revenue Code (Code) that provide guidance to tax return preparers on furnishing an identifying number on tax returns and claims for refund of tax that they prepare. These proposed regulations provide guidance on the identifying number of a tax return preparer for tax returns and claims for refund filed before and after the proposed effective date. The proposed regulations describe how the IRS will define the identifying number of tax return preparers. Additional provisions of the proposed regulations provide that tax return preparers must apply for and regularly renew their preparer identifying number as the IRS may prescribe in forms, instructions, or other guidance. This document also invites comments from the public regarding these proposed regulations.

DATES: Written or electronic comments and requests for a public hearing must be received by April 26, 2010.

ADDRESSES: Send submissions to: CC:PA:LPD:PR (REG–134235–08), Room 5205, Internal Revenue Service, P.O. Box 7604, Ben Franklin Station, Washington, DC 20044. Submissions may be hand-delivered Monday through Friday between the hours of 8 a.m. and 4 p.m. to CC:PA:LPD:PR (REG–134235–08), Courier's Desk, Internal Revenue Service, 1111 Constitution Avenue, NW., Washington, DC 20224, or sent electronically via the Federal eRulemaking Portal at *http://www.regulations.gov* (IRS–REG–134235–08).

FOR FURTHER INFORMATION CONTACT: Concerning the proposed regulations, Stuart Murray at (202) 622–4940 (not a toll-free number); concerning submissions of comments and requests for a hearing, Richard Hurst at *richard.a.hurst@irscounsel.treas.gov.*

SUPPLEMENTARY INFORMATION:

Paperwork Reduction Act

The collection of information contained in this notice of proposed rulemaking has been submitted to the Office of Management and Budget for review in accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)). Comments on the collection of information should be sent to the Office of Management and Budget, Attn: Desk Officer for the Department of the Treasury, Office of Information and Regulatory Affairs, Washington, DC 20503, with copies to the Internal Revenue Service, Attn: IRS Reports Clearance Officer, SE:W:CAR:MP:T:T:SP, Washington, DC 20224. Comments on the collection of information should be received by April 26, 2010.

Comments are specifically requested concerning:

Whether the proposed collection of information is necessary for the proper performance of the functions of the IRS, including whether the information will have practical utility;

The accuracy of the estimated burden associated with the proposed collection of information (see below);

How the quality, utility, and clarity of the information to be collected may be enhanced;

How the burden of complying with the proposed collections of information may be minimized, including through the application of automated collection techniques or other forms of information technology; and

Estimates of capital or start-up costs of operation, maintenance, and purchase of service to provide information.

The collection of information in these proposed regulations is in § 1.6109–2(d) and (e). This information is required in order for the IRS to issue identifying numbers to tax return preparers who are eligible to receive them. Tax return preparers will need to apply for an identifying number as prescribed in forms, instructions, or other guidance. The use of a prescribed identifying number by tax return preparers on tax returns and claims for refund of tax will enable the IRS to accurately identify tax return preparers, to match tax return preparers to tax returns and claims for refund that they prepare, and to generally administer the internal revenue laws. The collection of information is mandatory. The likely respondents are tax return preparers and employers of tax return preparers.

Estimated total annual reporting burden: 300,000 hours.

Estimated average annual burden hours (or fraction of an hour) per respondent: varies from 10 to 20 minutes, with an estimated average of 15 minutes.

Estimated number of respondents: 1.2 million.

Estimated annual frequency of responses: once every three years.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the collection of information displays a valid control number assigned by the Office of Management and Budget.

Books or records relating to a collection of information must be retained as long as their contents may become material in the administration of any internal revenue law. Generally, tax returns and tax return information are confidential, as required by 26 U.S.C. 6103.

Background

This document contains proposed amendments to regulations under section 6109 of the Code relating to furnishing a tax return preparer's identifying number on tax returns and claims for refund of tax. Section 6109 was added to the Code in 1961 (Pub. L. 87–397, 75 Stat. 828) and authorizes the Secretary to prescribe regulations for the inclusion of identifying numbers on a return, statement, or other document required to be filed with the IRS. In addition, section 6109(c) authorizes the Secretary "to require such information as may be necessary to assign an identifying number to any person." Section 6109(a)(4) as originally enacted by section 1203(d) of the Tax Reform Act of 1976 (Pub. L. 94–455, 90 Stat. 1520) required return preparers to furnish on income tax returns and claims for refund of income tax an identifying number, as prescribed, to identify the preparer, the preparer's employer, or both. Section 8246(a)(2)(D)(i) of the Small Business and Work Opportunity Tax Act of 2007 (Pub. L. 110–28, 121 Stat. 112), amended section 6109(a)(4) to allow the IRS to prescribe that tax return preparers furnish identifying numbers on any tax returns or claims for refund they prepare. As currently prescribed in regulations, the identifying number of a tax return preparer who is an individual is the preparer's Social Security number (SSN) or alternative number as prescribed by the IRS. The proposed regulations provide that the identifying number of a tax return preparer is exclusively the number prescribed by the IRS. The proposed regulations will implement some of the recommendations made in Publication 4832, *Return Preparer Review* (Rev. 12–2009), published at the end of last year (the Report). The IRS and the Treasury Department believe that the implementation of the Report's recommendations, including the recommendations implemented by these regulations, will increase tax compliance and allow taxpayers to be confident that the tax return preparers to whom they turn for assistance are knowledgeable, skilled, and ethical.

1. Identifying Numbers Generally

Because an identifying number is unique to the person to whom assigned, the IRS is able to use the number to correctly identify the taxpayer or the tax return preparer. The use of identifying numbers allows the IRS to accurately and timely process returns and issue refunds, centralize information, post information to the correct taxpayer's account, and effectively administer the rules relating to tax return preparers.

2. Requiring Identifying Numbers From Tax Return Preparers

Tax return preparers generally must provide an identifying number on the tax returns they prepare and sign. Specifically, under § 1.6695–1(b), a signing tax return preparer, as defined under § 301.7701–15(b)(1), must sign a return of tax or claim for refund after it is completed and before it is presented to the taxpayer for signature. A signing tax return preparer under § 301.7701–15(b)(1) is a tax return preparer who has primary responsibility for the overall substantive accuracy of the preparation of a return of tax or claim for refund.

Under § 1.6109–2(a)(1), a tax return preparer who must sign a tax return or tax refund claim must also include an identifying number with the preparer's signature. A return of tax includes an information return described in § 301.7701–15(b)(4). If a signing tax return preparer has an employment arrangement or association with another person, then that other person's employer identification number (EIN) must also be included on the tax return or refund claim.

The identifying number of a signing tax return preparer, and the identifying number of any person with whom the preparer has an employment arrangement or association, must be included on electronically filed tax returns, as well as paper returns. Further, because of recent statutory changes, tax return preparers who prepare and file individual income tax returns (Form Series 1040) for their clients will soon be required to electronically file the returns, unless the tax return preparer reasonably expects to file only 10 or fewer individual

income tax returns for the calendar year. *See* Section 17 of the Worker, Homeownership, and Business Assistance Act of 2009, Public Law 111–92, 123 Stat. 2984, 2997 (adding Code section 6011(e)(3)).

Tax return preparers who are required but fail to include their identifying number on a tax return or refund claim, or fail to include the identifying number of any person with whom they have an employment arrangement or association, are subject to a penalty under section 6695(c). A tax return preparer is not liable for the penalty if the failure to include an identifying number is due to reasonable cause and not due to willful neglect.

3. Preparer Tax Identification Numbers

Section 6109(a) initially provided that the identifying number of a tax return preparer was the individual's SSN. Section 3710(a) of the IRS Restructuring and Reform Act of 1998 (Pub. L. 105–206, 112 Stat. 685) (RRA '98), allowed the IRS to prescribe an identifying number for tax return preparers other than the preparer's SSN. In response to section 3710(a) of RRA '98, the IRS developed and began to issue preparer tax identification numbers (PTINs). Tax return preparers currently may apply online for a PTIN using the e-services PTIN process on the IRS Web site at *http://www.irs.gov* or by filing Form W–7P, "Application for Preparer Tax Identification Number." Applying online is faster, and return preparers are encouraged to apply online. In the future, the IRS will prescribe the method to apply for a PTIN consistent with these proposed regulations. Currently, under § 1.6109–2(a)(2), a tax return preparer may use as an identifying number on a tax return or claim for refund either the preparer's SSN or an "alternative number" prescribed by the IRS, including a PTIN. But an EIN, an Electronic Filing Identification Number (EFIN) (which is an identification number assigned to IRS e-file providers), or an Electronic Transmitter Identification Number (ETIN) (which is an identification number assigned to IRS e-file providers who electronically transmit tax returns to the IRS) is not a valid preparer identifying number.

4. Regulation of Tax Return Preparers

In June 2009, the IRS initiated a comprehensive review of tax return preparers, and in December 2009 the IRS published the Report describing its findings from that review. The Report recommended, in part, that tax return preparers be required to obtain and use a PTIN as the exclusive preparer identifying number and undergo a tax-compliance check. As discussed below, the proposed regulations implement those recommendations.

Under current law, any individual may prepare a tax return or claim for refund. The Report recommended that the IRS establish new eligibility standards that an individual must meet in order to prepare tax returns—including testing, continuing education, and tax compliance checks. The Report contemplates that only attorneys, certified public accountants, enrolled agents, as well as tax return preparers who pass a minimum competency exam and meet other requirements (referred to as "registered tax return preparers") will be eligible to prepare and sign tax returns and claims for refund. These proposed regulations do not establish the requirements to become a registered tax return preparer, which primarily will be set forth in future guidance under Treasury Department Circular No. 230, 31 CFR part 10. After a transition period, however, it is intended that only individuals who satisfy the eligibility standards may obtain and use a PTIN as a tax return preparer.

Explanation of Provisions

1. Requiring the Use of PTINs

The proposed regulations provide that for tax returns or refund claims filed after December 31, 2010, the identifying number that a tax return preparer must include with the preparer's signature on tax returns and refund claims is that prescribed by the IRS in forms, instructions, or other guidance. Tax return preparers will not be able to use an SSN as a preparer identifying number unless specifically prescribed by the IRS in forms, instructions, or other guidance. Instead, to the extent provided in forms and instructions, a tax return preparer will be required to use a PTIN as the identifying number unless the IRS prescribes in the future a replacement to the PTIN. Forms and instructions will be revised accordingly. The use of PTINs as the identifying number for tax return preparers will improve tax administration and tax compliance, benefit taxpayers and tax return preparers, and help maintain the confidentiality of SSNs.

For tax returns or claims for refund filed before January 1, 2011, the identifying number of a tax return preparer will remain the preparer's SSN or PTIN. In the case of tax returns for taxable periods ending before January 1, 2011, and made on the appropriate forms prescribed for the taxable periods, but which are filed on or after January 1, 2011, tax return preparers must furnish on the returns the identifying number prescribed on the forms to be filed and in associated instructions.

For tax return preparation businesses and other persons having an employment arrangement or association with a tax return preparer, the business's or employer's EIN continues to be the identifying number that must be included on tax returns and refund claims along with the tax return preparer's signature and preparer identifying number. An individual tax return preparer, however, may not use an EIN as a preparer identifying number on a return, even if the preparer has an EIN (for example, as a sole proprietor). Tax return preparers who use their SSN, or an EIN, EFIN, or ETIN, instead of a valid PTIN, on tax returns or claims for refund filed after the effective date may be subject to the penalty under section 6695(c) unless the failure to include a valid PTIN is due to reasonable cause and not due to willful neglect.

2. Eligibility To Receive a PTIN

The proposed regulations provide that all tax return preparers must apply for a PTIN or other prescribed identifying number at the time and in the manner as may be prescribed by the IRS in forms, instructions, or other appropriate guidance. The proposed regulations also authorize the IRS to prescribe a user fee in connection with applying for, and renewing, a PTIN (or successor number similar to a PTIN). Except as provided in any transitional period, beginning after December 31, 2010, to obtain a PTIN, an individual must be an attorney, certified public accountant, enrolled agent, or registered tax return preparer under future guidance to be provided in Circular 230.

Only for purposes of applying for and renewing a PTIN or other prescribed preparer identifying number, the term *tax return preparer* means any individual who is compensated for preparing, or assisting in the preparation of, all or substantially all, of a tax return or claim for refund of tax. A tax return preparer does not include an individual who is not otherwise a tax return preparer as that term is defined in § 301.7701–15(b)(2), or who is an individual described in § 301.7701–15(f). The proposed regulations provide several examples illustrating who is a tax return preparer required to apply for a PTIN.

As part of the process of applying for a PTIN, a tax return preparer may be subject to both an initial tax-compliance check and subsequent periodic checks, which could include a review of a preparer's history of compliance with personal and business tax filing and

payment obligations. The tax-compliance check is intended to establish whether a tax return preparer has timely filed required personal and business tax returns and has paid taxes that are due or made other acceptable arrangements with the IRS, such as an approved installment agreement under section 6159. If a tax return preparer disregards any applicable requirements to obtain a prescribed identifying number and thereafter omits, when required to include, a valid identifying number on a tax return or claim for refund filed after the effective date, the preparer may be liable for the section 6695(c) penalty, unless the failure to include a valid identifying number was due to reasonable cause and not due to willful neglect.

The information a tax return preparer provides when the preparer initially applies for a PTIN or other prescribed identifying number will often become outdated or otherwise inaccurate. The IRS may require tax return preparers to regularly renew their identifying numbers and otherwise maintain updated information with the IRS. If a tax return preparer who is required to include an identifying number on a tax return or claim for refund filed after the effective date uses an expired identifying number, the tax return preparer may be liable for the section 6695(c) penalty, unless the use of the expired number was due to reasonable cause and not due to willful neglect.

The proposed regulations provide that if necessary for effective tax administration, the IRS may prescribe exceptions to any of the requirements, such as for an interim period while procedures are being implemented. For example, the IRS and the Treasury Department recognize that the procedures for becoming a registered tax return preparer may not be fully implemented when these regulations become effective. It is anticipated that transitional interim guidance will be provided to allow individuals who intend to become registered tax return preparers to obtain an interim PTIN or other interim identifying number that may be used as a preparer identifying number on tax returns and refund claims until the procedures are fully implemented. After the interim period, however, to obtain a PTIN, an individual will need to be an attorney, certified public accountant, enrolled agent, or registered tax return preparer authorized to practice before the IRS under Circular 230.

Proposed Effective/Applicability Date

These regulations are effective after the date that final regulations are published in the **Federal Register**.

Special Analyses

It has been determined that this notice of proposed rulemaking is not a significant regulatory action as defined in Executive Order 12866. Therefore, a regulatory assessment is not required. It has also been determined that section 553(b) of the Administrative Procedure Act (5 U.S.C. chapter 5) does not apply to these regulations.

It has been determined that an initial regulatory flexibility analysis under 5 U.S.C. 603 is required for this notice of proposed rulemaking. The analysis is set forth below under the heading, "Initial Regulatory Flexibility Analysis."

Pursuant to section 7805(f) of the Code, this notice of proposed rulemaking has been submitted to the Chief Counsel for Advocacy of the Small Business Administration for comment on its impact on small business.

Initial Regulatory Flexibility Analysis

When an agency issues a rulemaking proposal, the Regulatory Flexibility Act (5 U.S.C. chapter 6) requires the agency to "prepare and make available for public comment an initial regulatory flexibility analysis" that "describe[s] the impact of the proposed rule on small entities." 5 U.S.C. 603(a). Section 605 of the Act provides an exception to this requirement if the agency certifies that the proposed rulemaking will not have a significant economic impact on a substantial number of small entities. A small entity is defined as a small business, small nonprofit organization, or small governmental jurisdiction. 5 U.S.C. 601(3)–(6). The IRS and the Treasury Department conclude that the proposed regulations, if promulgated (together with other contemplated guidance provided for in these regulations), will impact a substantial number of small entities and the economic impact will be significant. As a result, an initial regulatory flexibility analysis is required.

Description of the reasons why the agency action is being considered.

Taxpayers' reliance on paid tax return preparers has grown steadily in recent decades. Today, paid tax return preparers assist a majority of U.S. taxpayers in meeting their income tax filing obligations. Beyond preparing tax returns, tax return preparers also help educate taxpayers about the tax laws, and facilitate electronic filing. Tax return preparers provide advice to taxpayers, identify items or issues for which the law or guidance is unclear, and inform taxpayers of the benefits and risks of positions taken on a tax return, and the tax treatment or reporting of items and transactions. Competent tax return preparers who are well educated in the rules and subject matter of their field can prevent costly errors, potentially saving a taxpayer from unwanted problems later on and relieving the IRS from expending valuable examination and collection resources.

Given the important role that tax return preparers play in Federal tax administration, the IRS has a significant interest in being able to accurately identify tax return preparers and monitor their tax return preparation activities. The proposed regulations are intended to advance tax administration by requiring all individuals who are paid to prepare all or substantially all of a tax return or claim for refund of tax to obtain a preparer identifying number prescribed by the IRS. Pursuant to the proposed regulations, the IRS will require individuals who sign tax returns or claims for refund to report the preparer's identifying number on a tax return or claim for refund when the return or refund claim is signed. The proposed regulations also provide that the IRS may require tax return preparers to apply for, and regularly renew, their identifying numbers. Under the proposed regulations, the IRS may prescribe a user fee payable when applying for a number and for renewal.

Further, the IRS and the Treasury Department conclude that taxpayers, tax return preparers, and overall tax administration will be best served through increased oversight of the tax return preparer industry. Mandating a single prescribed identifying number for all tax return preparers and assigning a prescribed number to registered tax return preparers is critical to effective oversight.

Statement of the objectives of, and the legal basis for, the proposed rule.

The principal objective of the proposed regulations is to enable the IRS to more accurately identify tax return preparers and the tax returns and refund claims associated with each tax return preparer. The proposed regulations do this by providing that the IRS may prescribe the use of identifying numbers for tax return preparers and the qualifications or other requirements necessary to obtain a valid number. The legal basis for these provisions is section 6109 of the Code, which authorizes the Secretary to prescribe the "identifying number for securing proper identification of" a tax return preparer and "to require such information as may

be necessary to assign an identifying number to any person."

Description and estimate (where feasible) of the number of small entities subject to the proposed rule.

The proposed regulations apply to individuals who prepare tax returns and claims for refund of tax. The estimated number of paid tax return preparers is as high as 1.2 million, which means the proposed regulations are likely to impact a large number of individuals. Most paid tax return preparers are employed by firms. A substantial number of paid tax return preparers are employed at small tax return preparation firms or are self-employed tax return preparers. Any economic impact of these regulations on small entities generally will be on self-employed tax return preparers who prepare and sign tax returns or on small businesses that employ one or more individuals who sign tax returns.

The appropriate NAICS codes for tax return preparers are those for tax return preparation services (NAICS code 541213) and other accounting services (NAICS code 541219). Entities identified under either of these two codes are considered small under the Small Business Administration's size standards (13 CFR 121.201), if their annual revenue is less than $7 million or $8.5 million, respectively. The IRS estimates that approximately 70 to 80 percent of the individuals subject to these proposed regulations are tax return preparers operating as or employed by small entities.

Description of the projected reporting, recordkeeping, and related requirements of the proposed rule, including an estimate of the classes of small entities that will be subject to the requirements and the type of professional skills necessary for preparation of the report or record.

The proposed regulations do not directly impose any reporting, recordkeeping, or similar requirements on any small entities. Rather, the proposed regulations provide that the IRS may prescribe in forms, instructions, or other guidance (including regulations) requirements for identifying numbers for tax return preparers, regular renewal of identifying numbers, and payment of a user fee when applying for or renewing an identifying number. In addition, other guidance may require certain tax return preparers to complete competency testing, complete continuing education courses, and adhere to established rules of practice governing attorneys, certified public accountants, enrolled agents, enrolled actuaries, and enrolled retirement plan agents.

Applying for an identifying number and subsequent renewal will require reporting of certain information, but are not expected to require recordkeeping. These activities also will not require the purchase or use of any special business equipment or software. To the extent it will be necessary to apply for a PTIN (or similar identifying number that replaces a PTIN) online at *http://www.irs.gov,* most if not all tax return preparation businesses have computers and Internet access. The IRS estimates that applying for a PTIN will take 10 to 20 minutes per individual, with an average of 15 minutes per individual.

Under other guidance that the IRS may issue, tax return preparers who apply to be registered tax return preparers and who regularly renew their status may be subject to recordkeeping requirements because they may be required to maintain specified records, such as documentation and educational materials relating to completion of continuing education courses. These requirements do not involve any specific professional skills other than general recordkeeping abilities already needed to own and operate a small business or to competently act as a tax return preparer. It is estimated that tax return preparers will annually spend approximately 30 minutes to 1 hour in maintaining records relating to the continuing education requirements, depending on individual circumstances.

A separate regulation addressing reasonable user fees will be proposed in the near future. Tax return preparers may be required to pay a user fee when first applying for a PTIN and at every renewal. Small entities may be affected by these costs if the entities choose to pay some or all of these fees for their employees.

Under regulations to be issued in the future, tax return preparers may also incur costs for commercial continuing education courses and minimum competency examinations, plus incidental costs, such as for travel and accommodations in order to maintain their status as registered tax return preparers under Circular 230. Course prices can vary greatly, from free to hundreds of dollars. Many small tax return preparation firms may choose, as with the user fee, to bear these costs for their employees. In some cases, small entities may lose sales and profits while their employed tax return preparers attend training or educational classes or are studying and sitting for examinations. Some small entities that employ tax return preparers may even need to alter their business operations if a significant number of their employees cannot satisfy the necessary registration and competency requirements. The IRS and the Treasury Department conclude, however, that only a small percentage of small entities, if any, may need to cease doing business or radically change their business model due to the proposed regulations.

Although each of the reporting and recordkeeping requirements and the costs identified above (in connection with the proposed regulations and the other anticipated guidance necessary to implement the Return Preparer Review) is not expected to singly result in a significant economic impact, taken together it is anticipated that they may have a significant economic impact on a substantial number of small entities.

Identification, to the extent practicable, of all relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule.

The proposed regulations do not duplicate, overlap, or conflict with any Federal statutes or other rules.

Description of any significant alternatives to the proposed rule that accomplish the stated objectives of applicable statutes and minimize any significant economic impact on small entities.

The IRS and the Treasury Department have determined that there are no viable alternatives to the proposed regulations that would enable the IRS to accurately identify tax return preparers, other than through the use of a prescribed identifying number, as provided in the proposed regulations.

More broadly, the IRS received a large volume of comments as part of the Return Preparer Review on the issue of increased oversight of tax return preparers generally and on the Report's proposed recommendations, including requiring tax return preparers to use a uniform prescribed identifying number. The comments were received from all categories of interested stakeholders, including tax professional groups representing large and small entities, IRS advisory groups, tax return preparers, and the public. The input received from this large and diverse community overwhelmingly expressed support for the proposed requirements.

As to the proposed requirements recommended in the Report, the IRS and the Treasury Department considered various alternatives in determining the best ways to effectuate proposed changes with respect to tax return preparers, including:

(1) Requiring all paid tax return preparers to comply with the ethical standards in Circular 230 or an ethics code similar to Circular 230, but not requiring any paid preparers to

demonstrate their qualification and competency;

(2) Requiring tax return preparers who are not currently authorized to practice before the IRS to register with the IRS, complete annual continuing education requirements, and meet certain ethical standards, but not to pass a minimum competency examination;

(3) Requiring all paid tax return preparers to pass a minimum competency examination and meet other registration requirements; and

(4) Requiring all paid tax return preparers who are not currently authorized to practice before the IRS to pass a minimum competency examination and meet other registration requirements, but "grandfather in" tax return preparers who have accurately and competently prepared tax returns for a certain period of years.

After consideration of these and other alternatives and the responses received in the public comment process, the IRS and the Treasury Department conclude that the provisions of the proposed regulations will most effectively promote sound tax administration. The provisions in the proposed regulations for a single prescribed identifying number for tax return preparers will enable the IRS to accurately identify tax return preparers, match preparers with the tax returns and claims for refund they prepare, and better administer the tax laws with respect to tax return preparers and their clients. The provisions, in combination with anticipated guidance described above, also will ensure that qualified, competent, and ethical tax return preparers will be assigned prescribed preparer identifying numbers. The testing requirements that may be set forth in other guidance will establish a benchmark of minimum competency necessary for tax return preparers to obtain their professional credentials, while the continuing education requirements are intended to ensure that tax return preparers remain current on the Federal tax laws and continue to develop their tax knowledge. The extension in other, prospective guidance of the rules in Circular 230 to any paid tax return preparer will require all practitioners to meet certain ethical standards and allow the IRS to suspend or otherwise appropriately discipline tax return preparers who engage in unethical or disreputable conduct. Accordingly, the implementation of qualification and competency standards is expected to increase tax compliance and allow taxpayers to be confident that the tax return preparers to whom they turn for assistance are knowledgeable, skilled, and ethical.

Comments and Requests for Public Hearing

Before these proposed regulations are adopted as final regulations, consideration will be given to any written comments (a signed original and eight (8) copies) or electronic comments that are submitted timely to the IRS. The IRS and the Treasury Department request comments on the clarity of the proposed rules and how they can be made easier to understand. All comments that are submitted by the public will be available for public inspection and copying. A public hearing will be scheduled if requested in writing by any person who timely submits comments. If a public hearing is scheduled, notice of the date, time, and place for the public hearing will be published in the **Federal Register**.

Drafting Information

The principal author of these proposed regulations is Stuart Murray of the Office of the Associate Chief Counsel, Procedure and Administration.

List of Subjects in 26 CFR Part 1

Income taxes, Reporting and recordkeeping requirements.

Proposed Amendments to the Regulations

Accordingly, 26 CFR part 1 is proposed to be amended as follows:

PART 1—INCOME TAXES

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

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

Section 1.6109–2 also issued under 26 U.S.C. 6109(a) * * *

Par. 2. Section 1.6109–2 is amended by revising the section heading, revising paragraphs (a)(2) and (d), and adding paragraphs (e), (f), (g), (h), and (i) to read as follows:

§ 1.6109–2 Tax return preparers furnishing identifying numbers for returns or claims for refund and related requirements.

(a) * * *

(2)(i) For tax returns or claims for refund filed on or before December 31, 2010, the identifying number of an individual tax return preparer is that individual's social security number or such alternative number as may be prescribed by the Internal Revenue Service in forms, instructions, or other appropriate guidance.

(ii) For tax returns or claims for refund filed after December 31, 2010, the identifying number of a tax return preparer is the individual's preparer tax identification number or such other number prescribed by the Internal Revenue Service in forms, instructions, or other appropriate guidance.

* * * * *

(d) Beginning after December 31, 2010, all tax return preparers must have a preparer tax identification number or other prescribed identifying number that was applied for and received at the time and in the manner, including the payment of a user fee, as may be prescribed by the Internal Revenue Service in forms, instructions, or other appropriate guidance. Except as provided in paragraph (h) of this section, beginning after December 31, 2010, to obtain a preparer tax identification number or other prescribed identifying number, a tax return preparer must be an attorney, certified public accountant, enrolled agent, or registered tax return preparer authorized to practice before the Internal Revenue Service under 31 U.S.C. 330 and the regulations thereunder.

(e) The Internal Revenue Service may designate an expiration date for any preparer tax identification number or other prescribed identifying number and may further prescribe the time and manner for renewing a preparer tax identification number or other prescribed identifying number, including the payment of a user fee, as set forth in forms, instructions, or other appropriate guidance. The Internal Revenue Service may provide that any identifying number issued by the Internal Revenue Service prior to the effective date of this regulation will expire on December 31, 2010, unless properly renewed as set forth in forms, instructions, or other appropriate guidance, including these regulations.

(f) As may be prescribed in forms, instructions, or other appropriate guidance, the IRS may conduct a tax compliance check on a tax return preparer who applies for or renews a preparer tax identification number or other prescribed identifying number.

(g) Only for purposes of paragraphs (d), (e), and (f) of this section, the term *tax return preparer* means any individual who is compensated for preparing, or assisting in the preparation of, all or substantially all of a tax return or claim for refund of tax. Factors to consider in determining whether an individual is a tax return preparer under this paragraph (g) include, but are not limited to, the complexity of the work performed by the individual relative to the overall complexity of the tax return or claim for refund of tax; the amount of the items of income, deductions, or losses

attributable to the work performed by the individual relative to the total amount of income, deductions, or losses required to be correctly reported on the tax return or claim for refund of tax; and the amount of tax or credit attributable to the work performed by the individual relative to the total tax liability required to be correctly reported on the tax return or claim for refund of tax. A tax return preparer does not include an individual who is not otherwise a tax return preparer as that term is defined in § 301.7701–15(b)(2), or who is an individual described in § 301.7701–15(f). The provisions of this paragraph (g) are illustrated by the following examples:

Example 1. Employee A, an individual employed by Tax Return Preparer B, assists Tax Return Preparer B in answering telephone calls, making copies, inputting client tax information gathered by B into the data fields of tax preparation software on a computer, and using the computer to file electronic returns of tax prepared by B. Although Employee A must exercise judgment regarding which data fields in the tax preparation software to use, A does not exercise any discretion or independent judgment as to the clients' underlying tax positions. Employee A, therefore, merely provides clerical assistance or incidental services and is not a tax return preparer required to apply for a PTIN or other identifying number as the Internal Revenue Service may prescribe in forms, instructions, or other appropriate guidance.

Example 2. The facts are the same as in *Example 1,* except that Employee A also interviews B's clients and obtains from them information needed for the preparation of tax returns. Employee A determines the amount and character of entries on the returns and whether the information provided is sufficient for purposes of preparing the returns. For at least some of B's clients, A obtains information and makes determinations that constitute all or substantially all of the tax return. Employee A is a tax return preparer required to apply for a PTIN or other identifying number as the Internal Revenue Service may prescribe in forms, instructions, or other appropriate guidance. Employee A is a tax return preparer even if Employee A relies on tax preparation software to prepare the return.

Example 3. C is an employee of a firm that prepares tax returns and claims for refund of tax for compensation. C is responsible for preparing a Form 1040, "U.S. Individual Income Tax Return," for a client. C obtains the information necessary for completing the return during a meeting with the client, and makes determinations with respect to the proper application of the tax laws to the information in order to determine the client's tax liability. C completes the tax return and sends the completed return to employee D, who reviews the return for accuracy before signing it. Both C and D are tax return preparers required to apply for a PTIN or other identifying number as the Internal Revenue Service may prescribe in forms, instructions, or other appropriate guidance.

Example 4. E is an employee at a firm which prepares tax returns and claims for refund of tax for compensation. The firm is engaged by a corporation to prepare its Federal income tax return on Form 1120, "U.S. Corporation Income Tax Return." Among the documentation that the corporation provides to E in connection with the preparation of the tax return is documentation relating to the corporation's potential eligibility to claim a recently enacted tax credit for the taxable year. In preparing the return, and specifically for purposes of the new tax credit, E (with the corporation's consent) obtains advice from F, a subject matter expert on this and similar credits. F advises E as to the corporation's entitlement to the credit and provides his calculation of the amount of the credit. Based on this advice from F, E prepares the corporation's Form 1120 claiming the tax credit in the amount recommended by F. The additional credit is one of many tax credits and deductions claimed on the tax return, and determining the credit amount does not constitute preparation of all or substantially all of the corporation's tax return under this paragraph (g). F will not be considered to have prepared all or substantially all of the corporation's tax return, and F is not a tax return preparer required to apply for a PTIN or other identifying number as the Internal Revenue Service may prescribe in forms, instructions, or other appropriate guidance. The analysis is the same whether or not the tax credit is a substantial portion of the return under § 301.7701–15 of this chapter, and whether or not F is in the same firm with E. E is a tax return preparer required to apply for a PTIN or other identifying number as the Internal Revenue Service may prescribe in forms, instructions, or other appropriate guidance.

(h) The Internal Revenue Service, through forms, instructions, or other appropriate guidance, may prescribe exceptions to the requirements of this section, including the requirement that an individual be authorized to practice before the Internal Revenue Service before receiving a preparer tax identification number or other prescribed identifying number, as necessary in the interest of effective tax administration.

(i) *Effective/applicability date.* Paragraph (a)(2) of this section is effective for returns and claims for refund filed after the date that final regulations are published in the **Federal Register.** Paragraphs (d) through (h) of this section are effective after the date that final regulations are published in the **Federal Register.**

Steven T. Miller,

Deputy Commissioner for Services and Enforcement.

[FR Doc. 2010–6867 Filed 3–24–10; 11:15 am]

BILLING CODE 4830–01–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R09–OAR–2009–0958; FRL–9131–3]

Revisions to the California State Implementation Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing to approve revisions to the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) portion of the California State Implementation Plan (SIP). These revisions concern volatile organic compound (VOC) emissions from refinery vacuum producing systems and process unit turnaround. We are approving local rules that regulate these emission sources under the Clean Air Act as amended in 1990 (CAA or the Act). We are taking comments on this proposal and plan to follow with a final action.

DATES: Any comments must arrive by April 26, 2010.

ADDRESSES: Submit comments, identified by docket number [EPA–R09–OAR–2009–0958], by one of the following methods:

1. *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the on-line instructions.
2. *E-mail: steckel.andrew@epa.gov.*
3. *Mail or deliver:* Andrew Steckel (Air–4), U.S. Environmental Protection Agency Region IX, 75 Hawthorne Street, San Francisco, CA 94105–3901.

Instructions: All comments 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 Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Information that you consider CBI or otherwise protected should be clearly identified as such and should not be submitted through *http://www.regulations.gov* or e-mail. *Http://www.regulations.gov* is an "anonymous access" system, and EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send e-mail directly to EPA, your e-mail address will be automatically captured and included as part of the public comment. 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.

Docket: The index to the docket for this action is available electronically at *http://www.regulations.gov* and in hard copy at EPA Region IX, 75 Hawthorne Street, San Francisco, California. While all documents in the docket are listed in the index, some information may be publicly available only at the hard copy location (e.g., copyrighted material), and some may not be publicly available in either location (e.g., CBI). To inspect the hard copy materials, please schedule an appointment during normal business hours with the contact listed in the **FOR FURTHER INFORMATION CONTACT** section.

FOR FURTHER INFORMATION CONTACT: Joanne Wells, EPA Region IX, (415) 947–4118, *wells.joanne@epa.gov.*

SUPPLEMENTARY INFORMATION: Throughout this document, "we," "us" and "our" refer to EPA.

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I. The State's Submittal

A. What rules did the State submit?

Table 1 lists the rules addressed by this proposal with the dates that they were amended by the local air agency and submitted by the California Air Resources Board (CARB).

TABLE 1—SUBMITTED RULES

District	Rule No.	Rule title	Amended	Submitted
SJVUAPCD	4453	Refinery Vacuum Producing Devices or Systems	12/17/92	08/24/07
SJVUAPCD	4454	Refinery Process Unit Turnaround	12/17/92	08/24/07

On September 17, 2007, EPA determined that the submittal for San Joaquin Valley Unified Air Pollution Control District Rules 4453 and 4454 met the completeness criteria in 40 CFR part 51 Appendix V, which must be met before formal EPA review.

B. Are there other versions of these rules?

SIP versions of submitted SJVUAPCD rules are old rules from three of the eight counties that now comprise SJVUAPCD: These SIP-approved rules are described below:

Precursor SIP rules for submitted SJVUAPCD Rule 4453:

- Kern County Rule 414.2, Refinery Process Vacuum Producing Devices or Systems (approved on August 21, 1981, 46 FR 42459).
- Kings County Rule 414.2, Refinery Vacuum Producing Devices or Systems (approved on May 7, 1982, 47 FR 19696).
- San Joaquin County Rule 413.2, Refinery Vacuum Producing Devices (approved on May 7, 1982, 47 FR 19696).

Precursor SIP rules for submitted SJVUAPCD Rule 4454:

- Kern County Rule 414.3, Refinery Process Unit Turnaround (approved on August 21, 1981, 46 FR 42459).
- Kings County Rule 414.3, Refinery Process Unit Turnaround (approved on May 7, 1982, 47 FR 19696).
- San Joaquin County Rule 413.3, Refinery Process Unit Turnaround (approved on May 7, 1982, 47 FR 19696).

C. What is the purpose of the submitted rules and rule revisions?

VOCs help produce ground-level ozone and smog, which harm human health and the environment. Section 110(a) of the CAA requires states to submit regulations that control VOC emissions. These rules were developed as part of the local agency's program to control VOCs.

The purposes of amendments to Rules 4453 and 4454 are as follows:

- 4453: The rule requires reducing VOC emissions from refinery vacuum producing devices by covering hot wells and collecting vapors for recycle to refinery gas or incineration. The format is improved, the rule is renumbered, the rule purpose and applicability are added, and a 90% VOC control efficiency requirement is added.
- 4454: The rule requires reducing VOC emissions from a refinery process unit turnaround by collecting vapors for recycle to refinery gas, incineration, or flaring. The format is improved, the rule is renumbered, and the rule purpose and applicability are added.

EPA's technical support document (TSD) has more information about these rules.

II. EPA's Evaluation and Action

A. How is EPA evaluating the rules?

Generally, SIP rules must be enforceable (see section 110(a) of the Act), must require Reasonably Available Control Technology (RACT) for each category of sources covered by a Control Techniques Guidelines (CTG) document as well as each major source in nonattainment areas (see sections 182(a)(2) and (b)(2)), and must not relax existing requirements (see sections 110(l) and 193). The SJVUAPCD regulates an ozone nonattainment area (see 40 CFR part 81), so these rules must fulfill RACT.

Guidance and policy documents that we use to evaluate enforceability and RACT requirements consistently include the following:

1. Portions of the proposed post-1987 ozone and carbon monoxide policy that concern RACT, 52 FR 45044 (November 24, 1987).
2. *Requirements for Preparation, Adoption, and Submittal of Implementation Plans,* U.S. EPA, 40 CFR part 51.
3. Addendum to the General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990, 59 FR 41998 (August 16, 1994).
4. *Issues Relating to VOC Regulation Cutpoints, Deficiencies, and Deviations,* EPA (May 25, 1988). [The Bluebook]
5. *Guidance Document for Correcting Common VOC & Other Rule Deficiencies,* EPA Region 9 (August 21, 2001). [The Little Bluebook]
6. *Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds,* EPA–450/2–77–025 (October 1977).
7. *2007 Ozone Plan,* San Joaquin Valley Unified Air Pollution Control District (April 30, 2007).*http://www.arb.ca.gov/planning/sip/2007sip/sjv8hr/sjvozone.htm.*
8. *RACT Demonstration for Ozone SIP,* San Joaquin Valley Unified Air Pollution Control District (April 16, 2009).

B. Do the rules meet the evaluation criteria?

We believe these rules are consistent with the relevant policy and guidance regarding enforceability, RACT, and SIP relaxations. The TSD has more information on our evaluation.

C. EPA Recommendations To Further Improve the Rules

The TSD describes additional rule revisions that we recommend for the next time the local agency modifies the rules.

D. Public Comment and Final Action

Because EPA believes the submitted rules fulfill all relevant requirements, we are proposing to fully approve them as described in section 110(k)(3) of the Act. We will accept comments from the public on this proposal for the next 30 days. Unless we receive convincing new information during the comment period, we intend to publish a final approval action that will incorporate these rules into the federally enforceable SIP.

III. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve State choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this action merely approves State law as meeting Federal requirements and does not impose additional requirements beyond those imposed by State law. For that reason, this action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the State, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Intergovernmental relations, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

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

Dated: March 8, 2010.

Jared Blumenfeld,

Regional Administrator, Region IX.

[FR Doc. 2010–6804 Filed 3–25–10; 8:45 am]

BILLING CODE 6560–50–P

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

48 CFR Chapter 14

RIN 1076–AE95

Tribal Consultation on Draft Buy Indian Act Regulations

AGENCY: Bureau of Indian Affairs, Interior.

ACTION: Notice of tribal consultation meetings.

SUMMARY: Indian Affairs will conduct consultation meetings with Indian tribes to obtain oral and written comments concerning draft regulations to implement the Buy Indian Act. *See* the **SUPPLEMENTARY INFORMATION** section of this notice for details.

DATES: The tribal consultation meetings will take place on Monday, April 26, 2010; Wednesday, April 28, 2010; and Friday, April 30, 2010.

FOR FURTHER INFORMATION CONTACT: Kathy Daum, Director, Indian Affairs, Office of Acquisition and Property Management (OAPM), 2051 Mercator Drive, Reston, VA 20191; Telephone: (703) 390–6460; Fax: (703) 390–6582; E-mail: *kathy.daum@bia.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

Indian Affairs is developing a rule to guide implementation of the Buy Indian Act, 25 U.S.C. 47, which provides authority to set aside procurement contracts for qualified Indian-owned businesses. The rule will supplement the Federal Acquisition Regulation (FAR) and the Department of the Interior Acquisition Regulations (DIAR). Indian Affairs is developing the rule to describe uniform administrative procedures that Indian Affairs will use in all of its locations to encourage procurement relationships with eligible Indian economic enterprises in the execution of the Buy Indian Act. The draft rule being developed includes revisions to address the input received as a result of earlier publications in the **Federal Register** soliciting comment and consultation hearings in Indian Country. Indian Affairs reviewed all comments received to date, addressed them in succeeding draft versions, and incorporated them into the current draft version of the rule, where applicable. A consultation booklet containing the current draft version of the rule will be distributed to federally recognized Indian tribes and BIA regional and agency offices and will be available at the meetings.

II. Meeting Details

Tribal consultation meetings will be held at the following dates and locations:

Date	Time	Location
Monday, April 26, 2010	9 a.m.–5 p.m	Holiday Inn Portland Airport, 8439 NE Columbia Blvd., Portland, OR 97220, (503) 914–5251.
Wednesday, April 28, 2010	9 a.m.–5 p.m	Holiday Inn Rushmore Plaza 505, North Fifth Street, Rapid City, SD 57701, (605) 348–8000.
Friday, April 30, 2010	9 a.m.–5 p.m	Tulsa Marriott Southern Hills, 1902 East 71st, Tulsa, OK 74136, (918) 493–7000.

Dated: March 18, 2010.

Larry Echo Hawk,

Assistant Secretary—Indian Affairs.

[FR Doc. 2010–6742 Filed 3–25–10; 8:45 am]

BILLING CODE 4310–02–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 622

[Docket No. 0911051395–0145–01]

RIN 0648–AY32

Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Comprehensive Ecosystem-Based Amendment for the South Atlantic Region

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

ACTION: Proposed rule; request for comments.

SUMMARY: NMFS issues this proposed rule to implement the Comprehensive Ecosystem-Based Amendment 1 (CE–BA1) to the following South Atlantic fishery management plans (FMPs): The FMP for Coral, Coral reefs, and Live/Hard Bottom Habitats of the South Atlantic Region (Coral FMP); the FMP for the Dolphin and Wahoo Fishery off the Atlantic States (Dolphin and Wahoo FMP); the FMP for Golden Crab of the South Atlantic Region (Golden Crab FMP); the FMP for the Shrimp Fishery of the South Atlantic Region (Shrimp FMP); and the FMP for the Snapper-Grouper Fishery of the South Atlantic Region (Snapper-Grouper FMP), as prepared and submitted by the South Atlantic Fishery Management Council (Council); as well as the FMP for Coastal Migratory Pelagic (CMP) Resources (CMP FMP); and the FMP for the Spiny Lobster Fishery of the Gulf of Mexico and South Atlantic (Spiny Lobster FMP), as prepared and submitted by the South Atlantic and Gulf of Mexico Fishery Management Councils. This proposed rule would establish Deepwater Coral Habitat Areas of Particular Concern (Deepwater Coral HAPCs) off the coast of the southern Atlantic States in which the use of specified fishing gear and methods and the possession of coral would be prohibited. Within the Deepwater Coral HAPCs, fishing zones would be created that would allow continued fishing on the historical grounds for golden crab and deepwater shrimp. In addition, CE–BA1 would update existing Essential Fish Habitat (EFH) information in the area off the southern Atlantic States, thus, addressing the need for spatial representation of designated EFH and EFH–HAPCs. The intended effects of this rule are to protect what is thought to be the largest distribution of pristine deepwater coral ecosystems in the world while minimizing the effects on traditional fishing in the Deepwater Coral HAPCs.

DATES: Written comments on this proposed rule must be received no later than 5 p.m., eastern time, on May 10, 2010.

ADDRESSES: You may submit comments, identified by RIN 0648–AY32, by any one of the following methods:

- *Electronic Submissions:* Submit all electronic public comments via the Federal eRulemaking Portal *http://www.regulations.gov*
- *Fax:* 727–824–5308, Attn: Karla Gore
- *Mail:* Karla Gore, Southeast Regional Office, NMFS, 263 13th Avenue South, St. Petersburg, FL 33701

Instructions: No comments will be posted for public viewing until after the comment period has closed. 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.

To submit comments through the Federal e-Rulemaking Portal: *http://www.regulations.gov,* enter "NOAA–NMFS–2009–0158" in the keyword search, then select "Send a Comment or Submission." NMFS will accept anonymous comments. Enter N/A in the required field if you wish to remain anonymous. Attachments to electronic comments will be accepted in Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only.

Copies of CE–BA1 may be obtained from the South Atlantic Fishery Management Council, 4055 Faber Place, Suite 201, North Charleston, SC 29405; phone: 843–571–4366 or 866–SAFMC–10 (toll free); fax: 843–769–4520; e-mail: *safmc@safmc.net.* CE–BA1 includes a Final Environmental Impact Statement (FEIS), an Initial Regulatory Flexibility Analysis (IRFA), a Regulatory Impact Review, and a Social Impact Assessment/Fishery Impact Statement.

FOR FURTHER INFORMATION CONTACT: Karla Gore, telephone: 727–824–5305.

SUPPLEMENTARY INFORMATION: The fisheries for coastal migratory pelagics; coral, coral reefs, and live/hard bottom habitats; dolphin and wahoo; golden crab; shrimp; spiny lobster; and snapper-grouper off the southern Atlantic States are managed under their respective FMPs. The FMPs were prepared by the Council(s) and are implemented under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) by regulations at 50 CFR part 622.

Deepwater Coral HAPCs

Deepwater corals are slow growing and easily damaged by bottom-tending gear. Areas of deepwater coral provide hard substrates and habitat for a biologically rich and diverse community of associated fish and invertebrates. More than 99 species of fish and invertebrates are associated with deepwater coral habitats, including commercial species such as wreckfish, deepwater groupers, and golden crab.

The proposed rule would establish five Deepwater Coral HAPCs: Cape Lookout Lophelia Banks Deepwater Coral HAPC, Cape Fear Lophelia Banks Deepwater Coral HAPC, Stetson-Miami Terrace Deepwater Coral HAPC, Pourtales Terrace Deepwater Coral HAPC, and Blake Ridge Diapir Deepwater Coral HAPC. These Deepwater Coral HAPCs would provide positive biological benefits to the deepwater corals and to the species that rely on these areas. In all of the proposed Deepwater Coral HAPCs, possession of coral species and the use of bottom longline, trawl (mid-water and bottom), dredge, pot, or trap gear would be prohibited. The use of anchor, anchor and chain, or grapple and chain would also be prohibited within the Deepwater Coral HAPCs. The fishery for wreckfish would not be affected since the use of bottom tending hook-and-line gear used in that fishery would not be prohibited in the proposed Deepwater Coral HAPCs. Similarly, the use of hook-and-line gear commonly used in the snapper-grouper fishery would not be prohibited.

Given the slow-growth of these deepwater corals, the restrictions in this proposed rule would be expected to result in long-term biological benefits to deepwater coral habitat as well as the species that utilize this habitat.

Shrimp Fishery Access Areas

This rule would designate four portions of one of the Deepwater Coral HAPCs as shrimp fishery access areas. In these areas, an owner or operator of a vessel for which a valid commercial

vessel permit for rock shrimp (South Atlantic EEZ) has been issued would be allowed to trawl for and possess shrimp. Such vessels are required to have an operating vessel monitoring system (VMS) approved by NMFS for use in the South Atlantic rock shrimp fishery on board when on a trip in the South Atlantic.

The proposed shrimp fishery access areas are areas where shrimp fishermen have traditionally trawled when fishing for deepwater shrimp and where damage to bottom habitat is already expected to have occurred during fishing operations. Currently, these areas are experiencing low levels of shrimp fishing effort. Because damage to deepwater coral is already expected to have occurred and current shrimp fishing effort levels are low, further habitat degradation in these areas is not likely.

Golden Crab Fishery Access Areas

This rule would designate five portions of the Deepwater Coral HAPCs as golden crab fishery access areas. In these areas, an owner or operator of a vessel for which a valid commercial permit for South Atlantic golden crab has been issued would be allowed to use a trap to fish for golden crab and use a grapple and chain while engaged in such fishing. Access to a specific area would be contingent on the zone restrictions stated on the vessel's permit for South Atlantic golden crab.

The proposed golden crab fishery access areas are areas traditionally fished for golden crab. The golden crab fishermen avoid setting their traps on coral to protect their gear as well as the coral habitat, and therefore, damage to deepwater coral in these areas is expected to be minimal. Currently, these areas are heavily regulated and experience low levels of golden crab fishing effort. Because damage to deepwater coral is unlikely to occur and current golden crab fishing effort levels are low, further habitat degradation in these areas is not likely.

Additional Measures in CE–BA1

CE–BA1 proposes to update existing EFH information regarding the area off the southern Atlantic States by including spatial representation of previously designated EFH and EFH–HAPCs in a Geographic Information System. The addition of this information does not change EFH specifications currently in the FMPs and does not require any change in regulatory language.

Amendments to FMPs

The Deepwater Coral HAPCs and the additional measures in CE–BA1, discussed above, constitute amendments to FMPs as follows: Amendment 19 to the CMP FMP; Amendment 6 to the Coral FMP; Amendment 1 to the Dolphin and Wahoo FMP; Amendment 4 to the Golden Crab FMP; Amendment 8 to the Shrimp FMP; Amendment 5 to the Spiny Lobster FMP; and Amendment 19 to the Snapper-Grouper FMP.

Availability of CE–BA1

Additional background and rationale for the measures discussed above are contained in CE–BA1. The availability of CE–BA1 was announced in the **Federal Register** on March 4, 2010 (75 FR 9864). Written comments on CE–BA1 must be received by May 3, 2010. All comments received on CE–BA1 or on this proposed rule during their respective comment periods will be addressed in the preamble to the final rule.

Classification

Pursuant to section 304(b)(1)(A) of the Magnuson-Stevens Act, the NMFS Assistant Administrator has determined that this proposed rule is consistent with the FMPs subject to this rulemaking, other provisions of the Magnuson-Stevens Act, and other applicable law, subject to further consideration after public comment.

This proposed rule has been determined to be not significant for purposes of Executive Order 12866.

NMFS prepared a Draft Environmental Impact Statement (DEIS) for this amendment. A notice of availability for the DEIS was published on July 24, 2009 (74 FR 36706).

NMFS prepared an IRFA, as required by section 603 of the Regulatory Flexibility Act, for this proposed rule. The IRFA describes the economic impact this proposed rule, if adopted, would have on small entities. A description of the action, why it is being considered, and the objectives of and legal basis for this action are contained at the beginning of this section in the preamble and in the **SUMMARY** section of the preamble. A copy of the full analysis is available from the Council (*see* **ADDRESSES**). A summary of the IRFA follows.

This proposed rule would establish Deepwater Coral HAPCs off the coast of the southern Atlantic States in which the use of specified fishing gear and methods and the possession of coral would be prohibited. Within the Deepwater Coral HAPCs, fishing zones would be created that would allow continued fishing on the historical grounds for golden crab and deepwater shrimp. The Magnuson-Stevens Act provides the statutory basis for this proposed rule.

No duplicative, overlapping, or conflicting Federal rules have been identified. However, similar to the proposed rule, which would prohibit the use of bottom longlines in the Deepwater Coral HAPCs, current regulation (50 CFR 622.31(d)) prohibits the use of bottom longlines in the wreckfish fishery in the South Atlantic EEZ. Also, similar to the proposed rule, which would prohibit the use of traps in the Deepwater Coral HAPCs, current regulation (50 CFR 622.31(c)) prohibits the use of fish traps in the South Atlantic EEZ. Finally, similar to the proposed rule, which would prohibit the possession of coral within the Deepwater Coral HAPCs, current regulation (50 CFR 622.32(b)(3)(i)) does not allow "Gulf and South Atlantic prohibited coral" (50 CFR 622.2) to be sold or purchased, and, when taken as incidental catch, the prohibited coral must be returned immediately to the sea in the general area of fishing. This proposed rule would directly affect commercial fishing entities that operate in the proposed Deepwater Coral HAPCs and use bottom longline gear, trawls (mid-water and bottom), dredges, pots, or traps; anchor and chain; or grapple and chain; and/or possess coral in these Deepwater Coral HAPCs. Although many commercial species are found in the proposed areas, only wreckfish, golden crab, and royal red shrimp are known to be presently harvested in these areas. However, if any snapper-grouper species are caught in the proposed Deepwater Coral HAPCs, the proposed rule would not prohibit snapper-grouper fishermen, such as those that harvest wreckfish, from deploying commonly used gear, such as rod and reel, bandit, and handline gear. Hence, the only entities expected to be directly affected by this proposed rule are those that fish for golden crab or royal red shrimp.

This proposed rule includes provisions that reduce the adverse economic effects on golden crab and royal red shrimp fishing vessels. First, the proposed Shrimp Fishery Access Areas would be areas within the Deepwater Coral HAPCs where royal red shrimp fishing vessels with a valid commercial vessel permit for rock shrimp (South Atlantic EEZ) and equipped with an approved VMS would be allowed to continue to operate in the historical royal red shrimp fishing areas without added restrictions. Second, the

proposed Golden Crab Fishery Access Areas would be areas within the proposed Deepwater Coral HAPCs where golden crab fishing vessels would be allowed to continue to operate in historic fishing areas without added restrictions.

There are six vessels that fish for royal red shrimp in the South Atlantic and, at present, two of these vessels are believed to fish for the species full time. Atlantic and Gulf of Mexico landings of royal red shrimp combined peaked at approximately 507,000 lbs (229,971 kg) in 2007. With an average price of $4 per pound, total revenue from these landings was approximately $2 million, or approximately $333,000 per vessel. Most vessels that fish for royal red shrimp operate in other shrimp fisheries, such as the rock shrimp fishery, and are expected to own a commercial vessel permit for rock shrimp (South Atlantic EEZ), however, this is uncertain from available data. The individual and combined annual revenues from all fishing activities of royal red shrimp vessels is unknown.

Seven vessels reported landings of golden crab from 2004 to 2007, although there were 11 vessels with an annual permit to fish for or possess golden crab in, or off-load or sell golden crab from, the South Atlantic EEZ. Total dockside revenue from golden crab sales averaged $714,000 annually during the 3-year period, or approximately $102,000 annually per vessel. Vessels that operate in this crab fishery typically do not participate in other fisheries, and therefore the golden crab revenues generated by these vessels can be assumed to be the total annual revenues for these vessels.

The vessels that fish for royal red shrimp and golden crab represent businesses in the shellfish fishing industry (NAICS 114112). A small business in the shellfish fishing industry does not have annual receipts in excess of $4.0 million, is independently owned and operated and is not dominant in its field of operations. Based on the average revenue information provided above, all vessels that operate in the royal red shrimp and golden crab fisheries are determined for the purpose of this analysis to be small businesses.

This proposed rule would allow royal red shrimp fishing vessels with a commercial vessel permit for rock shrimp (South Atlantic EEZ) and equipped with an approved VMS to continue fishing in their historic fishing areas. Vessels that fish for royal red shrimp are not required to have a commercial vessel permit for rock shrimp (South Atlantic EEZ) and an approved VMS, however, because they use similar gear as rock shrimp vessels, royal red shrimp vessels are likely to have both a commercial vessel permit for rock shrimp (South Atlantic EEZ) and a VMS. As a result, this proposed rule would not be expected to have any adverse economic impact on vessels that operate in the royal red shrimp fishery.

Golden crab fishing currently occurs in the proposed Stetson-Miami Terrace Deepwater Coral HAPC and Pourtales Terrace Deepwater Coral HAPC. The three proposed Golden Crab Fishery Access Areas, including the Golden Crab Northern and Middle Access Areas within the proposed Stetson-Miami Terrace Deepwater Coral HAPC and the Golden Crab Southern Access Area within the proposed Pourtales Terrace Deepwater Coral HAPC, would allow golden crab fishing vessels to continue current fishing practices in the traditional fishing areas. As a result, this proposed rule would not be expected to have any adverse economic impact on any vessels that operate in the golden crab fishery.

No other potential direct adverse economic impacts on small entities have been identified. Thus, it is expected that this proposed rule would not result in a significant economic impact on a substantial number of small entities. However, NMFS specifically invites comments on this finding.

Two alternatives, including the status quo no-action alternative, were considered for the action to establish Deepwater Coral Habitat Areas of Particular Concern (Deepwater Coral HAPCs). The proposed rule would establish five Deepwater Coral HAPCs: Cape Lookout Lophelia Banks Deepwater Coral HAPC, Cape Fear Lophelia Banks Deepwater Coral HAPC, Stetson-Miami Terrace Deepwater Coral HAPC, Pourtales Terrace Deepwater Coral HAPC, and Blake Ridge Diapir Deepwater Coral HAPC. In all of the proposed Deepwater Coral HAPCs, possession of coral species and the use of bottom longline, trawl (mid-water and bottom), dredge, pot, or trap gear would be prohibited. The use of anchor, anchor and chain, or grapple and chain would also be prohibited within the Deepwater Coral HAPCs. The status quo would not establish Deepwater Coral HAPCs and would not achieve the Council's objectives.

Three alternatives, including the status quo no-action alternative, were considered to reduce the adverse economic impact of the establishment of Deepwater Coral HAPCs on small businesses that harvest royal red shrimp. The royal red shrimp fishery operates almost exclusively within an area inshore of, but also along, the western boundary of the proposed Stetson-Miami Terrace Deepwater Coral HAPC. This proposed rule would protect vulnerable deepwater corals and reduce the adverse economic impact on royal red shrimp fishermen by creating a Shrimp Fishery Access Area within the Stetson-Miami Terrace Deepwater Coral HAPC where fishing with a shrimp trawl and shrimp possession would be allowed by any royal red shrimp fishing vessel holding a commercial vessel permit for rock shrimp (South Atlantic EEZ) and equipped with an approved VMS. The status quo no-action alternative would not allow continued fishing by royal red shrimp vessels and, as a result, would have the largest adverse economic impact on royal red shrimp fishing vessels caused by the creation of the Deepwater Coral HAPCs. The other alternative to the proposed action would move the western boundary of the Stetson-Miami Terrace Deepwater Coral HAPC and eliminate the adverse economic impact on royal red shrimp fishing vessels; however, it would not protect vulnerable deepwater corals and, as a result, would not achieve the Council's objectives.

Three alternatives, including the status quo no-action alternative, were considered to reduce the adverse economic impact of the establishment of Deepwater Coral HAPCs on small businesses that fish for golden crab. This proposed rule would create three Golden Crab Fishery Access Areas, which would substantially reduce the adverse economic impact on golden crab fishing vessels caused by the creation of the Deepwater Coral HAPCs. The status quo no-action alternative would not create the allowable fishing areas and, as a result, would have the largest adverse economic impact on small businesses that fish for golden crab because it would prohibit fishing in almost all golden crab fishing areas. The other alternative would position part of the Golden Crab Fishery Access Areas on historical royal red shrimp fishing grounds. As a result, this alternative would reduce the direct adverse economic impact of the establishment of the Deepwater Coral HAPCs on small businesses that fish for golden crab, but it could have negative economic impacts to both shrimp and golden crab fishing vessels in the future due to gear conflicts. None of the three Golden Crab Fishery Access Areas created by this proposed rule are located in historical royal red shrimp fishing areas.

Three alternatives, including the status quo no-action alternative, were considered to amend the Golden Crab

FMP to require a VMS on board fishing vessels that harvest golden crab. This proposed rule, which would maintain the status quo, would not require a VMS for this fishery and would not result in the added cost to golden crab fishing businesses. The second alternative would require a VMS on board any vessel that fishes for golden crab in the Golden Crab Fishery Access Areas, and the third alternative would require a VMS on board any vessel fishing in the South Atlantic EEZ with a limited access golden crab permit. Both non-status quo alternatives would impose additional costs on small businesses in the fishery, while the status quo alternative would not.

List of Subjects in 50 CFR Part 622

Fisheries, Fishing, Puerto Rico, Reporting and recordkeeping requirements, Virgin Islands.

Dated: March 22, 2010.

Samuel D. Rauch III,

Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.

For the reasons set out in the preamble, 50 CFR part 622 is proposed to be amended as follows:

PART 622—FISHERIES OF THE CARIBBEAN, GULF, AND SOUTH ATLANTIC

1. The authority citation for part 622 continues to read as follows:

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

2. In § 622.35, paragraph (m) is added to read as follows:

§ 622.35 Atlantic EEZ seasonal and/or area closures.

* * * * *

(m) *Deepwater Coral HAPCs*—(1) *Locations.* The following areas are designated Deepwater Coral HAPCs:

(i) *Cape Lookout Lophelia Banks* is bounded by rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	34°24′37″	75°45′11″
1	34°10′26″	75°58′44″
2	34°05′47″	75°54′54″
3	34°21′02″	75°41′25″
Origin	34°24′37″	75°45′11″

(ii) *Cape Fear Lophelia Banks* is bounded by rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	33°38′49″	76°29′32″
1	33°32′21″	76°32′38″
2	33°29′49″	76°26′19″
3	33°36′09″	76°23′37″
Origin	33°38′49″	76°29′32″

(iii) *Stetson Reefs, Savannah and East Florida Lithotherms, and Miami Terrace (Stetson-Miami Terrace)* is bounded by—

(A) Rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	28°17′10″	79°00′00″
1	31°23′37″	79°00′00″
2	31°23′37″	77°16′21″
3	32°38′37″	77°16′21″
4	32°38′21″	77°34′06″
5	32°35′24″	77°37′54″
6	32°32′18″	77°40′26″
7	32°28′42″	77°44′10″
8	32°25′51″	77°47′43″
9	32°22′40″	77°52′05″
10	32°20′58″	77°56′29″
11	32°20′30″	77°57′50″
12	32°19′53″	78°00′49″
13	32°18′44″	78°04′35″
14	32°17′35″	78°07′48″
15	32°17′15″	78°10′41″
16	32°15′50″	78°14′09″
17	32°15′20″	78°15′25″
18	32°12′15″	78°16′37″
19	32°10′26″	78°18′09″
20	32°04′42″	78°21′27″
21	32°03′41″	78°24′07″
22	32°04′58″	78°29′19″
23	32°06′59″	78°30′48″
24	32°09′27″	78°31′31″
25	32°11′23″	78°32′47″
26	32°13′09″	78°30′04″
27	32°14′08″	78°34′36″
28	32°12′48″	78°36′34″
29	32°13′07″	78°39′07″
30	32°14′17″	78°40′01″
31	32°16′20″	78°40′18″
32	32°16′33″	78°42′32″
33	32°14′26″	78°43′23″
34	32°11′14″	78°45′42″
35	32°10′19″	78°49′08″
36	32°09′42″	78°52′54″
37	32°08′15″	78°56′11″
38	32°05′00″	79°00′30″
39	32°01′54″	79°02′49″
40	31°58′40″	79°04′51″
41	31°56′32″	79°06′48″
42	31°53′27″	79°09′18″
43	31°50′56″	79°11′29″
44	31°49′07″	79°13′35″
45	31°47′56″	79°16′08″
46	31°47′11″	79°16′30″
47	31°46′29″	79°16′25″
48	31°44′31″	79°17′24″
49	31°43′20″	79°18′27″
50	31°42′26″	79°20′41″
51	31°41′09″	79°22′26″
52	31°39′36″	79°23′59″
53	31°37′54″	79°25′29″
54	31°35′57″	79°27′14″
55	31°34′14″	79°28′24″
56	31°31′08″	79°29′59″
57	31°30′26″	79°29′52″
58	31°29′11″	79°30′11″
59	31°27′58″	79°31′41″
60	31°27′06″	79°32′08″
61	31°26′22″	79°32′48″
62	31°24′21″	79°33′51″
63	31°22′53″	79°34′41″
64	31°21′03″	79°36′01″
65	31°20′00″	79°37′12″
66	31°18′34″	79°38′15″
67	31°16′49″	79°38′36″
68	31°13′06″	79°38′19″
70	31°11′04″	79°38′39″
70	31°09′28″	79°39′09″
71	31°07′44″	79°40′21″
72	31°05′53″	79°41′27″
73	31°04′40″	79°42′09″
74	31°02′58″	79°42′28″
75	31°01′03″	79°42′40″
76	31°59′50″	79°42′43″
77	30°58′27″	79°42′43″
78	30°57′15″	79°42′50″
79	30°56′09″	79°43′28″
80	30°54′49″	79°44′53″
81	30°53′44″	79°46′24″
82	30°52′47″	79°47′40″
83	30°51′45″	79°48′16″
84	30°48′36″	79°49′02″
85	30°45′24″	79°49′55″
86	30°41′36″	79°51′31″
87	30°38′38″	79°52′23″
88	30°35′29″	79°52′54″
89	30°32′55″	79°54′19″
90	30°31′05″	79°55′27″
91	30°28′09″	79°56′06″
92	30°26′57″	79°56′34″
93	30°25′25″	79°57′36″
94	30°23′03″	79°58′25″
95	30°21′27″	79°59′24″
96	30°18′22″	80°00′09″
97	30°16′34″	80°00′33″
98	30°14′55″	80°00′23″
99	30°12′36″	80°01′44″
100	30°12′00″	80°01′49″
101	30°06′52″	80°01′58″
102	29°59′16″	80°04′11″
103	29°49′12″	80°05′44″
104	29°43′59″	80°06′24″
105	29°38′37″	80°06′53″
106	29°36′54″	80°07′18″
107	29°31′59″	80°07′32″
108	29°29′14″	80°07′18″
109	29°21′48″	80°05′01″
110	29°20′25″	80°04′29″
111	29°08′00″	79°59′43″
112	29°06′56″	79°59′07″
113	29°05′59″	79°58′44″
114	29°03′34″	79°57′37″
115	29°02′11″	79°56′59″
116	29°00′00″	79°55′32″
117	28°56′55″	79°54′22″
118	28°55′00″	79°53′31″
119	28°53′35″	79°52′51″
120	28°51′47″	79°52′07″
121	28°50′25″	79°51′27″
122	28°49′53″	79°51′20″
123	28°49′01″	79°51′20″
124	28°48′19″	79°51′10″
125	28°47′13″	79°50′59″
126	28°43′30″	79°50′36″
127	28°41′05″	79°50′04″
128	28°40′27″	79°50′07″
129	28°39′50″	79°49′56″
130	28°39′04″	79°49′58″
131	28°36′43″	79°49′35″
132	28°35′01″	79°49′24″
133	28°30′37″	79°48′35″
134	28°14′00″	79°46′20″
135	28°11′41″	79°46′12″

Point	North lat.	West long.
136	28°08′02″	79°45′45″
137	28°01′20″	79°45′20″
138	27°58′13″	79°44′51″
139	27°56′23″	79°44′53″
140	27°49′40″	79°44′25″
141	27°46′27″	79°44′22″
142	27°42′00″	79°44′33″
143	27°36′08″	79°44′58″
144	27°30′00″	79°45′29″
145	27°29′04″	79°45′47″
146	27°27′05″	79°45′54″
147	27°25′47″	79°45′57″
148	27°19′46″	79°45′14″
149	27°17′54″	79°45′12″
150	27°12′28″	79°45′00″
151	27°07′45″	79°46′07″
152	27°04′47″	79°46′29″
153	27°00′43″	79°46′39″
154	26°58′43″	79°46′28″
155	26°57′06″	79°46′32″
156	26°49′58″	79°46′54″
157	26°48′58″	79°46′56″
158	26°47′01″	79°47′09″
159	26°46′04″	79°47′09″
160	26°35′09″	79°48′01″
161	26°33′37″	79°48′21″
162	26°27′56″	79°49′09″
163	26°25′55″	79°49′30″
164	26°21′05″	79°50′03″
165	26°20′30″	79°50′20″
166	26°18′56″	79°50′17″
167	26°16′19″	79°54′06″
168	26°13′48″	79°54′48″
169	26°12′19″	79°55′37″
170	26°10′57″	79°57′05″
171	29°09′17″	79°58′45″
172	26°07′11″	80°00′22″
173	26°06′12″	80°00′33″
174	26°03′26″	80°01′02″
175	26°00′35″	80°01′13″
176	25°49′10″	80°00′38″
177	25°48′30″	80°00′23″
178	25°46′42″	79°59′14″
179	25°27′28″	80°02′26″
180	25°24′06″	80°01′44″
181	25°21′04″	80°01′27″
182	25°21′04″	79°42′04″

(B) The outer boundary of the EEZ in a northerly direction from Point 182 to the Origin.

(iv) *Pourtales Terrace* is bounded by—

(A) Rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	24°20′12″	80°43′50″
1	24°33′42″	80°34′23″
2	24°37′45″	80°31′20″
3	24°47′18″	80°23′08″
4	24°51′08″	80°27′58″
5	24°42′52″	80°35′51″
6	24°29′44″	80°49′45″
7	24°15′04″	81°07′52″
8	24°10′55″	80°58′11″

(B) The outer boundary of the EEZ in a northerly direction from Point 8 to the Origin.

(v) *Blake Ridge Diapir* is bounded by rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	32°32′28″	76°13′16″
1	32°30′44″	76°13′24″
2	32°30′37″	76°11′21″
3	32°32′21″	76°11′13″
Origin	32°32′28″	76°13′16″

(2) *Restrictions.* In the Deepwater Coral HAPCs specified in paragraph (l)(1) of this section, no person may:

(i) Use a bottom longline, trawl (mid-water or bottom), dredge, pot, or trap.

(ii) If aboard a fishing vessel, anchor, use an anchor and chain, or use a grapple and chain.

(iii) Fish for coral or possess coral in or from the Deepwater Coral HAPC on board a fishing vessel.

(3) *Shrimp fishery access areas.* The provisions of paragraph (l)(2)(i) of this section notwithstanding, an owner or operator of a vessel for which a valid commercial vessel permit for rock shrimp (South Atlantic EEZ) has been issued may trawl for shrimp in the following portions of the Stetson-Miami Terrace Deepwater Coral HAPC:

(i) *Shrimp access area A* is bounded by rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	30°12′00″	80°01′49″
1	30°06′52″	80°01′58″
2	29°59′16″	80°04′11″
3	29°49′12″	80°05′44″
4	29°43′59″	80°06′24″
5	29°38′37″	80°06′53″
6	29°36′54″	80°07′18″
7	29°31′59″	80°07′32″
8	29°29′14″	80°07′18″
9	29°21′48″	80°05′01″
10	29°20′25″	80°04′29″
11	29°20′25″	80°03′11″
12	29°21′48″	80°03′52″
13	29°29′14″	80°06′08″
14	29°31′59″	80°06′23″
15	29°36′54″	80°06′00″
16	29°38′37″	80°05′43″
17	29°43′59″	80°05′14″
18	29°49′12″	80°04′35″
19	29°59′16″	80°03′01″
20	30°06′52″	80°00′46″
21	30°12′00″	80°00′42″
Origin	30°12′00″	80°01′49″

(ii) *Shrimp access area B* is bounded by rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	29°08′00″	79°59′43″
1	29°06′56″	79°59′07″
2	29°05′59″	79°58′44″
3	29°03′34″	79°57′37″
4	29°02′11″	79°56′59″
5	29°00′00″	79°55′32″
6	28°56′55″	79°54′22″
7	28°55′00″	79°53′31″
8	28°53′35″	79°52′51″
9	28°51′47″	79°52′07″
10	28°50′25″	79°51′27″
11	28°49′53″	79°51′20″
12	28°49′01″	79°51′20″
13	28°48′19″	79°51′10″
14	28°47′13″	79°50′59″
15	28°43′30″	79°50′36″
16	28°41′05″	79°50′04″
17	28°40′27″	79°50′07″
18	28°39′50″	79°49′56″
19	28°39′04″	79°49′58″
20	28°36′43″	79°49′35″
21	28°35′01″	79°49′24″
22	28°30′37″	79°48′35″
23	28°30′37″	79°47′27″
24	28°35′01″	79°48′16″
25	28°36′43″	79°48′27″
26	28°39′04″	79°48′50″
27	28°39′50″	79°48′48″
28	28°40′27″	79°48′58″
29	28°41′05″	79°48′56″
30	28°43′30″	79°49′28″
31	28°47′13″	79°49′51″
32	28°48′19″	79°50′01″
33	28°49′01″	79°50′13″
34	28°49′53″	79°50′12″
35	28°50′25″	79°50′17″
36	28°51′47″	79°50′58″
37	28°53′35″	79°51′43″
38	28°55′00″	79°52′22″
39	28°56′55″	79°53′14″
40	29°00′00″	79°54′24″
41	29°02′11″	79°55′50″
42	29°03′34″	79°56′29″
43	29°05′59″	79°57′35″
44	29°06′56″	79°57′59″
45	29°08′00″	79°58′34″
Origin	29°08′00″	79°59′43″

(iii) *Shrimp access area C* is bounded by rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	28°14′00″	79°46′20″
1	28°11′41″	79°46′12″
2	28°08′02″	79°45′45″
3	28°01′20″	79°45′20″
4	27°58′13″	79°44′51″
5	27°56′23″	79°44′53″
6	27°49′40″	79°44′25″
7	27°46′27″	79°44′22″
8	27°42′00″	79°44′33″
9	27°36′08″	79°44′58″
10	27°30′00″	79°45′29″
11	27°29′04″	79°45′47″
12	27°27′05″	79°45′54″
13	27°25′47″	79°45′57″
14	27°19′46″	79°45′14″
15	27°17′54″	79°45′12″
16	27°12′28″	79°45′00″
17	27°07′45″	79°46′07″
18	27°04′47″	79°46′29″
19	27°00′43″	79°46′39″
20	26°58′43″	79°46′28″
21	26°57′06″	79°46′32″
22	26°57′06″	79°44′52″
23	26°58′43″	79°44′47″
24	27°00′43″	79°44′58″

Point	North lat.	West long.
25	27°04′47″	79°44′48″
26	27°07′45″	79°44′26″
27	27°12′28″	79°43′19″
28	27°17′54″	79°43′31″
29	27°19′46″	79°43′33″
30	27°25′47″	79°44′15″
31	27°27′05″	79°44′12″
32	27°29′04″	79°44′06″
33	27°30′00″	79°43′48″
34	27°30′00″	79°44′22″
35	27°36′08″	79°43′50″
36	27°42′00″	79°43′25″
37	27°46′27″	79°43′14″
38	27°49′40″	79°43′17″
39	27°56′23″	79°43′45″
40	27°58′13″	79°43′43″
41	28°01′20″	79°44′11″
42	28°04′42″	79°44′25″
43	28°08′02″	79°44′37″
44	28°11′41″	79°45′04″
45	28°14′00″	79°45′12″
Origin	28°14′00″	79°46′20″

(iv) *Shrimp access area D* is bounded by rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	26°49′58″	79°46′54″
1	26°48′58″	79°46′56″
2	26°47′01″	79°47′09″
3	26°46′04″	79°47′09″
4	26°35′09″	79°48′01″
5	26°33′37″	79°48′21″
6	26°27′56″	79°49′09″
7	26°25′55″	79°49′30″
8	26°21′05″	79°50′03″
9	26°20′30″	79°50′20″
10	26°18′56″	79°50′17″
11	26°18′56″	79°48′37″
12	26°20′30″	79°48′40″
13	26°21′05″	79°48′08″
14	26°25′55″	79°47′49″
15	26°27′56″	79°47′29″
16	26°33′37″	79°46′40″
17	26°35′09″	79°46′20″
18	26°46′04″	79°45′28″
19	26°47′01″	79°45′28″
20	26°48′58″	79°45′15″
21	26°49′58″	79°45′13″
Origin	26°49′58″	79°46′54″

(4) *Golden crab fishery access areas.* The provisions of paragraphs (l)(2)(i) and (ii) of this section notwithstanding, an owner or operator of a vessel for which a valid commercial permit for South Atlantic golden crab has been issued may use a trap to fish for golden crab and use a grapple and chain while engaged in such fishing in the following portions of the Stetson-Miami Terrace and the Pourtales Terrace Deepwater Coral HAPCs. Access to an area specified in paragraph (l)(4)(i) through (v) of this section is contingent on that zone being authorized on the vessel's permit for South Atlantic golden crab. *See* § 622.17(b) of this part for specification of zones.

(i) *Golden crab northern zone access area* is bounded by rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	29°00′00″	79°54′24″
1	28°56′55″	79°53′14″
2	28°55′00″	79°52′22″
3	28°53′35″	79°51′43″
4	28°51′47″	79°50′58″
5	28°50′25″	79°50′17″
6	28°49′53″	79°50′12″
7	28°49′01″	79°50′13″
8	28°48′19″	79°50′01″
9	28°47′13″	79°49′51″
10	28°43′30″	79°49′28″
11	28°41′05″	79°48′56″
12	28°40′27″	79°48′58″
13	28°39′50″	79°48′48″
14	28°39′04″	79°48′50″
15	28°36′43″	79°48′27″
16	28°35′01″	79°48′16″
17	28°30′37″	79°47′27″
18	28°30′37″	79°42′12″
19	28°14′00″	79°40′54″
20	28°14′00″	79°45′12″
21	28°11′41″	79°45′04″
22	28°08′02″	79°44′37″
23	28°04′42″	79°44′25″
24	28°01′20″	79°44′11″
25	28°00′00″	79°43′59″
26	28°00′00″	79°38′16″
27	28°11′42″	79°38′13″
28	28°23′02″	79°38′57″
29	28°36′50″	79°40′25″
30	28°38′33″	79°41′33″
31	28°38′20″	79°43′04″
32	28°41′00″	79°43′39″
33	28°48′16″	79°44′32″
34	28°54′29″	79°45′55″
35	29°00′00″	79°45′50″
Origin	29°00′00″	79°54′24″

(ii) *Golden crab middle zone access area A* is bounded by—

(A) Rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	26°58′45″	79°35′05″
1	27°00′39″	79°36′26″
2	27°07′55″	79°37′52″
3	27°14′52″	79°37′09″
4	27°29′21″	79°37′15″
5	28°00′00″	79°38′16″
6	28°00′00″	79°43′59″
7	27°58′13″	79°43′43″
8	27°56′23″	79°43′45″
9	27°49′40″	79°43′17″
10	27°46′27″	79°43′14″
11	27°42′00″	79°43′25″
12	27°36′08″	79°43′50″
13	27°30′00″	79°44′22″
14	27°30′00″	79°43′48″
15	27°29′04″	79°44′06″
16	27°27′05″	79°44′12″
17	27°25′47″	79°44′15″
18	27°19′46″	79°43′33″
19	27°17′54″	79°43′31″
20	27°12′28″	79°43′19″
21	27°07′45″	79°44′26″
22	27°04′47″	79°44′48″
23	27°00′43″	79°44′58″
24	26°58′43″	79°44′47″
25	26°57′06″	79°44′52″
26	26°57′06″	79°42′34″
27	26°49′58″	79°42′34″
28	26°49′58″	79°45′13″
29	26°48′58″	79°45′15″
30	26°47′01″	79°45′28″
31	26°46′04″	79°45′28″
32	26°35′09″	79°46′20″
33	26°33′37″	79°46′40″
34	26°27′56″	79°47′29″
35	26°25′55″	79°47′49″
36	26°21′05″	79°48′08″
37	26°20′30″	79°48′40″
38	26°18′56″	79°48′37″
39	26°03′38″	79°48′16″
40	26°03′35″	79°46′09″
41	25°58′33″	79°46′08″
42	25°54′27″	79°45′37″
43	25°46′55″	79°44′14″
44	25°38′04″	79°45′58″
45	25°38′05″	79°42′27″

(B) The outer boundary of the EEZ in a northerly direction from Point 45 to Point 46.

(C) Rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
46	26°07′49″	79°36′07″
47	26°17′36″	79°36′06″
48	26°21′18″	79°38′04″
49	26°50′46″	79°35′12″
50	26°50′40″	79°33′45″

(D) The outer boundary of the EEZ in a northerly direction from Point 50 to the Origin.

(iii) *Golden crab middle zone access area B* is bounded by rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	25°49′10″	80°00′38″
1	25°48′30″	80°00′23″
2	25°46′42″	79°59′14″
3	25°27′28″	80°02′26″
4	25°24′06″	80°01′44″
5	25°21′04″	80°01′27″
6	25°21′04″	79°58′12″
7	25°23′25″	79°58′19″
8	25°32′52″	79°54′48″
9	25°36′58″	79°54′46″
10	25°37′20″	79°56′20″
11	25°49′11″	79°56′00″
Origin	25°49′10″	80°00′38″

(iv) *Golden crab middle zone access area C* is bounded by—

(A) Rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	25°33′32″	79°42′18″
1	25°33′32″	79°47′14″
2	25°21′04″	79°53′45″

Point	North lat.	West long.
3	25°21′04″	79°42′04″

(B) The outer boundary of the EEZ in a northerly direction from Point 3 to the Origin.

(v) *Golden crab southern zone access area* is bounded by—

(A) Rhumb lines connecting, in order, the following points:

Point	North lat.	West long.
Origin	24°14′07″	80°53′27″
1	24°13′46″	81°04′54″
2	24°10′55″	80°58′11″

(B) The outer boundary of the EEZ in a northerly direction from Point 2 to the Origin.

[FR Doc. 2010–6764 Filed 3–25–10; 8:45 am]

BILLING CODE 3510–22–P

Notices

Federal Register

Vol. 75, No. 58

Friday, March 26, 2010

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.

DEPARTMENT OF AGRICULTURE

Office of the Secretary

Collaborative Forest Landscape Restoration Advisory Committee

AGENCY: Office of the Secretary, USDA.

ACTION: Notice; extension of application acceptance period.

SUMMARY: On March 5, 2010, the Department of Agriculture published in the **Federal Register** (75 FR 10204) a notice of intent to establish the Collaborative Forest Landscape Restoration Advisory Committee and call for nominations for committee members. The Department of Agriculture is extending the date that applications for nominations will be accepted from March 22, 2010, to March 29, 2010.

DATES: All nominations must be received in writing by March 29, 2010. Nominations must contain a completed application packet that includes the nominee's name, resume, and completed form AD–755 (Advisory Committee Membership Background Information). The package must be sent to the address below.

ADDRESSES: Send nominations and applications to William Timko, USDA Forest Service; Forest Management, Room 3NW; 201 14th Street, SW., Washington, DC 20024 by express mail or overnight courier service. If sent via the U.S. Postal Service, send to the following address: U.S. Department of Agriculture, Forest Service, Forest Management, National Forest System, Mail Stop 1103, 1400 Independence Avenue, SW.,Washington, DC 20250–1123.

FOR FURTHER INFORMATION CONTACT: Thomas Peterson, U.S. Department of Agriculture, National Forest System, Forest Management; telephone 202–205–0893, fax 202–205–1045, e-mail: *tpeterson01@fs.fed.us,* or contact William Timko, U.S. Department of Agriculture; National Forest System, Forest Management, telephone 202–205–0893, fax 202–205–1045, e-mail: *btimko@fs.fed.us.* Individuals who use telecommunication devices for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339 between 8 a.m. and 8 p.m., Eastern Standard Time, Monday through Friday.

Dated: March 21, 2010.

Pearlie S. Reed,

Assistant Secretary of Administration.

[FR Doc. 2010–6777 Filed 3–25–10; 8:45 am]

BILLING CODE 3410–11–P

DEPARTMENT OF AGRICULTURE

Rural Utilities Service

Announcement of Grant and Loan Application Deadlines and Funding Levels

AGENCY: Rural Utilities Service, USDA.

ACTION: Notice of funding availability and solicitation of applications.

SUMMARY: The Rural Utilities Service (RUS) announces its Revolving Fund Program (RFP) application window for Fiscal Year (FY) 2010. In addition to announcing the application window, RUS announces the available funding of $497,000 for RFP competitive grants for the fiscal year.

DATES: You may submit completed applications for grants on paper or electronically according to the following deadlines:

- Paper copies must be postmarked and mailed, shipped, or sent overnight *no later than* May 25, 2010 to be eligible for FY 2010 grant funding. Late or incomplete applications will not be eligible for FY 2010 grant funding.
- Electronic copies must be received by May 25, 2010 to be eligible for FY 2010 grant funding. Late or incomplete applications will not be eligible for FY 2010 grant funding.

ADDRESSES: You may obtain application guides and materials for the RFP program at the Water and Environmental Programs (WEP) Web site: *http://www.usda.gov/rus/water/index.htm.* You may also request application guides and materials by contacting Anita O'Brien at (202) 690–3789.

Submit completed paper applications for RFP grants to the USDA Rural Utilities Service, 1400 Independence Ave., SW., Room 2233, STOP 1570, Washington, DC 20250–1570. Applications should be marked "Attention: Assistant Administrator, Water and Environmental Programs."

Submit electronic grant applications at *http://www.grants.gov* (Grants.gov) and follow the instructions you find on that Web site.

FOR FURTHER INFORMATION CONTACT: Joyce Taylor, Community Program Specialist, USDA, Rural Utilities Service, Water and Environmental Programs; telephone: (202) 720–0499, fax: (202) 690–0649.

SUPPLEMENTARY INFORMATION:

Overview

Federal Agency: Rural Utilities Service (RUS).

Funding Opportunity Title: Grant Program to Establish a Fund for Financing Water and Wastewater Projects (Revolving Fund Program (RFP)).

Announcement Type: Funding Level Announcement, and Solicitation of Applications.

Catalog of Federal Domestic Assistance (CFDA) Number: 10.864.

Dates: You may submit completed application for a RFP grant from March 26, 2010 to May 25, 2010.

Reminder of competitive grant application deadline: Applications must be mailed, shipped or submitted electronically through Grants.gov no later than May 25, 2010 to be eligible for FY 2010 grant funding.

Items in Supplementary Information

I. Funding Opportunity: Brief introduction to the RFP.
II. Award Information: Available funds, maximum amounts.
III. Eligibility Information: Who is eligible, what kinds of projects are eligible, what criteria determine basic eligibility.
IV. Application and Submission Information: Where to get application materials, what constitutes a completed application, how and where to submit applications, deadlines, items that are eligible.
V. Application Review Information: Considerations and preferences, scoring criteria, review standards, selection information.
VI. Award Administration Information: Award notice information, award recipient reporting requirements.
VII. Agency Contacts: Web, phone, fax, e-mail, contact name.

I. Funding Opportunity

Drinking water systems are basic and vital to both health and economic development. With dependable water facilities, rural communities can attract families and businesses that will invest in the community and improve the quality of life for all residents. Without dependable water facilities, the communities cannot sustain economic development.

RUS provides financial and technical assistance to help communities bring safe drinking water and sanitary, environmentally sound waste disposal facilities to rural Americans. It supports the sound development of rural communities and the growth of our economy without endangering the environment.

The RFP has been established to assist communities with water or wastewater systems. Qualified private non-profit organizations, who are selected for funding, will receive RFP grant funds to establish a lending program for eligible entities. Eligible entities for the revolving loan fund will be the same entities eligible to obtain a loan, loan guarantee, or grant from the Water and Waste Disposal loan and grant programs administered by RUS, under 7 U.S.C. 1926(a)(1) and (2). As grant recipients, the non-profit organizations will set up a revolving loan fund to provide loans to finance predevelopment costs of water or wastewater projects, or short-term small capital projects not part of the regular operation and maintenance of current water and wastewater systems. The amount of financing to an eligible entity shall not exceed $100,000.00 and shall be repaid in a term not to exceed 10 years. The rate shall be determined in the approved grant work plan.

II. Award Information

Available funds: RUS is making available $497,000 for competitive grants in FY 2010.

III. Eligibility Information

A. Who is eligible to apply?

An applicant is eligible to apply for the RFP grant if it:

1. Is a private, non-profit organization;
2. Is legally established and located within one of the following:
(a) A state within the United States;
(b) The District of Columbia;
(c) The Commonwealth of Puerto Rico; or
(d) A United States territory;
3. Has the legal capacity and authority to carry out the grant purpose;
4. Has a proven record of successfully operating a revolving loan fund to rural areas;
5. Has capitalization acceptable to the Agency, and is composed of at least 51 percent of the outstanding interest or membership being citizens of the United States or individuals who reside in the United States after being legally admitted for permanent residence;
6. Has no delinquent debt to the Federal Government or no outstanding judgments to repay a Federal debt;
7. Demonstrates that it possesses the financial, technical, and managerial capability to comply with Federal and State laws and requirements.

B. What are the basic eligibility requirements for a project?

1. The following activities are authorized under the RFP statute:
(a) Grant funds must be used to capitalize a revolving fund program for the purpose of providing direct loan financing to eligible entities for pre-development costs associated with proposed or with existing water and wastewater systems, or
(b) Short-term costs incurred for equipment replacement, small-scale extension of services, or other small capital projects that are not part of the regular operations and maintenance activities of existing water and wastewater systems.
2. Grant funds may not be used to pay any of the following:
(a) Payment of the Grant Recipient's administrative costs or expenses, and
(b) Delinquent debt owed to the Federal Government.

IV. Application and Submission Information

A. The Grant Application Guide, Copies of Necessary Forms and Samples, and the RFP Regulation Are Available From These Sources

1. The Internet: *http://www.usda.gov/rus/water/index.htm* or *http://www.grants.gov.*
2. For paper copies of these materials telephone (202) 720–0499.

B. You May File an Application in Either Paper or Electronic Format

1. Applications submitted by paper:
(a) Send or deliver paper applications by the U.S. Postal Service (USPS) or courier delivery services to: Assistant Administrator—Water and Environmental Programs, Rural Utilities Service, 1400 Independence Avenue, SW., STOP 1548, Room S–5145, Washington, DC, 20250–1548.
(b) For paper applications mail or ensure delivery of an original paper application (no stamped, photocopied, or initialed signatures) and two copies by the deadline date. The application and any materials sent with it become Federal records by law and cannot be returned to you.
2. Electronically submitted applications:
(a) Applicant may file an electronic application at *http://www.grants.gov.* Applications will not be accepted via facsimile machine transmission or electronic mail. Grants.gov contains full instructions on all required passwords, credentialing, and software. Follow the instructions at Grants.gov for registering and submitting an electronic application. If a system problem or technical difficulty occurs with an electronic application, please use the customer support resources available at the Grants.gov Web site.
(b) First time Grants.gov users should go to the "Get Started" tab on the Grants.gov site and carefully read and follow the steps listed. These steps need to be initiated early in the application process to avoid delays in submitting your application online.
(c) Registering with the Central Contractor Registry (CCR) will take some time to complete, so keep that in mind when beginning the application process. In order to register with the CCR, your organization will need a Data Universal Numbering System (DUNS) Number.
(d) A DUNS number is a unique nine-character identification number provided by the commercial company, Dun & Bradstreet (D&B). Whether you file a paper or an electronic application, you will need a DUNS number. To investigate if your organization already has a DUNS number or to obtain a DUNS number, contact Dun & Bradstreet at 1–866–705–5711 or access the Web site at *http://www.dunandbradstreet.com.* You must provide your DUNS number on the SF–424, "Application for Federal Assistance." The following information is needed when requesting a DUNS number:
(1) Legal Name
(2) Headquarters name and address of the organization
(3) Doing business as (dba) or other name by which the organization is commonly recognized
(4) Physical address
(5) Mailing address (if separate from headquarters and/or physical address)
(6) Telephone number
(7) Contact name and title
(8) Number of employees at the physical location
(e) Be sure to complete the Marketing Partner ID (MPIN) and Electronic Business Primary Point of Contact fields during the CCR registration process. These are mandatory fields that are

required when submitting grant applications through Grants.gov. Information about registering with CCR was published in the **Federal Register** on January 17, 2006. (See 71 FR 2549.) Additional application instructions for submitting an electronic application can be found by selecting this funding opportunity on Grants.gov.

C. A Complete Application Must Meet the Following Requirements

1. To be considered for support, you must be an eligible entity and must submit a complete application by the deadline date. You should consult the cost principles and general administrative requirements for grants pertaining to their organizational type in order to prepare the budget and complete other parts of the application. You also must demonstrate compliance (or intent to comply), through certification or other means, with a number of public policy requirements.

2. Applicants must complete and submit the following forms to apply for a RFP grant:

(a) Standard Form 424, "Application for Federal Assistance"

(b) Standard Form 424A, "Budget Information—Non-Construction Programs"

(c) Standard Form 424B, "Assurances—Non-Construction Programs"

(d) Standard Form LLL, "Disclosure of Lobbying Activity"

(e) Form RD 400–1, "Equal Opportunity Agreement"

(f) Form RD 400–4, "Assurance Agreement" (Under Title VI, Civil Rights Act of 1964)

3. The project proposal should outline the project in sufficient detail to provide a reader with a complete understanding of how the loan program will work. Explain what you will accomplish by lending funds to eligible entities. Demonstrate the feasibility of the proposed loan program in meeting the objectives of this grant program. The proposal should cover the following elements:

(a) Present a brief project overview. Explain the purpose of the project, how it relates to RUS' purposes, how you will carry out the project, what the project will produce, and who will direct it.

(b) Describe why the project is necessary. Demonstrate that eligible entities need loan funds. Quantify the number of prospective borrowers or provide statistical or narrative evidence that a sufficient number of borrowers will exist to justify the grant award. Describe the service area. Address community needs.

(c) Clearly state your project goals. Your objectives should clearly describe the goals and be concrete and specific enough to be quantitative or observable. They should also be feasible and relate to the purpose of the loan program.

(d) The narrative should cover in more detail the items briefly described in the Project Summary. It should establish the basis for any claims that you have substantial expertise in promoting the safe and productive use of revolving funds. In describing what the project will achieve, you should tell the reader if it also will have broader influence. The narrative should address the following points:

(1) Document your ability to administer and service a revolving fund in accordance with the provisions of 7 CFR part 1783.

(2) Document your ability to commit financial resources to establish the RFP with funds your organization controls. This documentation should describe the sources of funds other than the RFP grant that will be used to pay your operational costs and provide financial assistance for projects.

(3) Demonstrate that you have secured commitments of significant financial support from other funding sources, if appropriate.

(4) List the fees and charges that borrowers will be assessed.

(e) The work plan must describe the tasks and activities that will be accomplished with available resources during the grant period. It must show the work you plan to do to achieve the anticipated outcomes, goals, and objectives set out for the RFP. The plan must:

(1) Describe the work to be performed by each person.

(2) Give a schedule or timetable of work to be done.

(3) Show evidence of previous experience with the techniques to be used or their successful use by others.

(4) Outline the loan program to include the following: specific loan purposes, a loan application process, priorities, borrower eligibility criteria, limitations, fees, interest rates, terms, and collateral requirements.

(5) Provide a marketing plan.

(6) Explain the mechanics of how you will transfer loan funds to the borrowers.

(7) Describe follow-up or continuing activities that should occur after project completion such as monitoring and reporting borrowers' accomplishments.

(8) Describe how the results will be evaluated. The evaluation criteria should be in line with the project objectives.

(9) List all personnel responsible for administering this program along with a statement of their qualifications and experience.

(f) The written justification for projected costs should explain how budget figures were determined for each category. It should indicate which costs are to be covered by grant funds and which costs will be met by your organization or other organizations. The justification should account for all expenditures discussed in the narrative. It should reflect appropriate cost-sharing contributions. The budget justification should explain the budget and accounting system proposed or in place. The administrative costs for operating the budget should be expressed as a percentage of the overall budget. The budget justification should provide specific budget figures, rounding off figures to the nearest dollar. Applicants should consult OMB Circular A–122: "Cost Principles for Non-Profit Organizations" for information about appropriate costs for each budget category.

(g) In addition to completing the standard application forms, you must submit:

(1) Supplementary material that demonstrate that your organization is legally recognized under state and Federal law. Satisfactory documentation includes, but is not limited to, certificates from the Secretary of State, or copies of state statutes or laws establishing your organization. Letters from the IRS awarding tax-exempt status are not considered adequate evidence.

(2) A certified list of directors and officers with their respective terms.

(3) Evidence of tax exempt status from the IRS.

(4) Debarment and suspension information required in accordance with 7 CFR, part 3017, subpart 3017.335, if it applies. The section heading is "What information must I provide before entering into a covered transaction with the Department of Agriculture?" It is part of the Department of Agriculture's rules on Government-wide Debarment and Suspension.

(5) All of your organization's known workplaces by including the actual address of buildings (or parts of buildings) or other sites where work under the award takes place. Workplace identification is required under the drug-free workplace requirements in accordance with 7 CFR, part 3021, subpart 3021.230. The section heading is "How and when must I identify workplaces?" It is part of the Department of Agriculture's rules on Government-wide Requirements for

Drug-Free Workplace (Financial Assistance).

(6) The most recent audit of your organization.

(7) The following financial statements:

i. A pro forma balance sheet at start-up and for at least three additional years; Balance sheets, income statements, and cash flow statements for the last three years.

ii. If your organization has been formed less than three years, the financial statements should be submitted for the periods from inception to the present. Projected income and cash flow statements for at least three years supported by a list of assumptions showing the basis for the projections. The projected income statement and balance sheet must include one set of projections that shows the revolving loan fund only and a separate set of projections that shows your organization's total operations.

(8) Additional information to support and describe your plan for achieving the grant objectives. The information may be regarded as essential for understanding and evaluating the project such as letters of support, resolutions, policies, etc. The supplements may be presented in appendices to the proposal.

V. Application Review Information

A. Within 30 days of receiving your application, RUS will send you a letter of acknowledgment. Your application will be reviewed for completeness to determine if you included all of the items required. If your application is incomplete or ineligible, RUS will return it to you with an explanation.

B. A review team, composed of at least two members, will evaluate all applications and proposals. They will make overall recommendations based on factors such as eligibility, application completeness, and conformity to application requirements. They will score the applications based on criteria in the next section.

C. All applications that are complete and eligible will be ranked competitively based on the following scoring criteria:

Scoring criteria	Points
1. Degree of expertise and successful experience in making and servicing commercial loans, with a successful record, for the following number of full years:	
(i) At least 1 but less than 3 years	5 points.
(ii) At least 3 but less than 5 years	10 points.
(iii) At least 5 but less than 10 years	20 points.
(iv) 10 or more years	30 points.
2. Percentage of applicant contributions. Points allowed under this paragraph will be based on written evidence of the availability of funds from sources other than the proceeds of a RFP grant to pay part of the cost of a loan recipient's project. In-kind contributions will not be considered. Funds from other sources as a percentage of the RFP grant and points corresponding to such percentages are as follows:	
Less than 20 percent –;	Ineligible.
At least 20 percent but not more than 49 percent of the total project costs	10 points.
3. Extent to which the work plan clearly articulates a well thought out comprehensive approach to accomplishing objectives; clearly defines who will be served by the project or program; clearly articulates the problem/issues to be addressed, identifies the service area to be covered by the RFP loans, and appears likely to be sustainable.	Up to 40 points.
4. Extent to which the goals and objectives are clearly defined, tied to the work plan, and are measurable	Up to 15 points.
5. Lowest ratio of projected administrative expenses to loans advanced	Up to 10 points.
6. Evaluation methods for considering loan applications and making RFP loans are specific to the program, clearly defined, measurable, and are consistent with program outcomes.	Up to 20 points.
7. Administrator's discretion, taking into consideration such factors as:	Up to 10 points.
Creative outreach ideas for marketing RFP loans;	
Amount of funds requested in relation to the amount of needs demonstrated in the proposal;.	
Excellent utilization of a previous revolving loan fund; and,	
Optimizing the use of agency resources.	

VI. Award Administration Information

A. RUS will rank all qualifying applications by their final score. Applications will be selected for funding, based on the highest scores and the availability of funding for RFP grants. Each applicant will be notified in writing of the score its application receives.

B. In making its decision about your application, RUS may determine that your application is:

1. Eligible and selected for funding,

2. Eligible but offered fewer funds than requested,

3. Eligible but not selected for funding, or

4. Ineligible for the grant.

C. In accordance with 7 CFR part 1900, subpart B, you generally have the right to appeal adverse decisions. Some adverse decisions cannot be appealed. For example, if you are denied RUS funding due to a lack of funds available for the grant program, this decision cannot be appealed. However, you may make a request to the National Appeals Division (NAD) to review the accuracy of our finding that the decision cannot be appealed. The appeal must be in writing and filed at the appropriate Regional Office, which can be found at *http://www.nad.usda.gov/offices.htm* or by calling (703) 305–1166.

D. Applicants selected for funding will complete a grant agreement, which outlines the terms and conditions of the grant award.

E. Grantees will be reimbursed as follows:

1. SF–270, "Request for Advance or Reimbursement," will be completed by the grantee and submitted to either the State or National Office.

2. Upon receipt of a properly completed SF–270, the funds will be requested through the field office terminal system. Ordinarily, payment will be made within 30 days after receipt of a proper request for reimbursement.

F. Any change in the scope of the project, budget adjustments of more than 10 percent of the total budget, or any other significant change in the project must be reported to and approved by the approval official by written amendment to the grant agreement. Any change not approved may be cause for termination of the grant.

G. Grantees shall constantly monitor performance to ensure that time schedules are being met, projected work by time periods is being accomplished, and other performance objectives are

being achieved. The Grantee will provide project reports as follows:

1. SF–269, "Financial Status Report (short form)," and a project performance activity report will be required of all grantees on a quarterly basis, due 30 days after the end of each quarter.

2. A final project performance report will be required with the last SF–269 due 90 days after the end of the last quarter in which the project is completed. The final report may serve as the last quarterly report.

3. All multi-State grantees are to submit an original of each report to the National Office. Grantees serving only one State are to submit an original of each report to the State Office. The project performance reports should detail, preferably in a narrative format, activities that have transpired for the specific time period.

H. The grantee will provide an audit report or financial statements as follows:

1. Grantees expending $500,000 or more Federal funds per fiscal year will submit an audit conducted in accordance with OMB Circular A–133. The audit will be submitted within 9 months after the grantee's fiscal year. Additional audits may be required if the project period covers more than one fiscal year.

2. Grantees expending less than $500,000 will provide annual financial statements covering the grant period, consisting of the organization's statement of income and expense and balance sheet signed by an appropriate official of the organization. Financial statements will be submitted within 90 days after the grantee's fiscal year.

VII. Agency Contacts

A. Web site: *http://www.usda.gov/rus/water.* The Rural Utilities Service Web site maintains up-to-date resources and contact information for the RFP.

B. Phone: 202–720–0499.

C. Fax: 202–690–0649.

D. E-mail: *joycem.taylor@wdc.usda.gov.*

E. Main point of contact: Joyce Taylor, Community Programs Specialist, Water and Environmental Programs, Water Programs Division, Rural Utilities Service, USDA.

Dated: March 5, 2010.

Jonathan Adelstein,

Administrator, Rural Utilities Service.

[FR Doc. 2010–6686 Filed 3–25–10; 8:45 am]

BILLING CODE P

DEPARTMENT OF AGRICULTURE

Rural Utilities Service

Household Water Well System Grant Program Announcement of Application Deadlines and Funding

AGENCY: Rural Utilities Service, USDA.

ACTION: Notice of funding availability and solicitation of applications.

SUMMARY: The Rural Utilities Service (RUS) announces the availability of $993,000 in grant funds to be competitively awarded for the Household Water Well System (HWWS) Grant Program for fiscal year 2010. RUS will make grants to qualified private non-profit organizations to establish lending programs for homeowners to borrow up to $11,000 to construct or repair household water wells for an existing home. The HWWS Grant Program regulations are contained in 7 CFR 1776.

DATES: The deadline for completed applications for a HWWS grant is May 31, 2010. Applications in either paper or electronic format must be postmarked or time-stamped electronically on or before the deadline. Late applications will be ineligible for grant consideration.

ADDRESSES: Submit electronic grant applications through *http://www.grants.gov* (Grants.gov), following the instructions on that Web site. Submit completed paper applications to the U.S. Department of Agriculture, Rural Utilities Service, Mail Stop #1570, Room 2233–S, 1400 Independence Ave., SW., Washington, DC 20250–1570. Applications should be marked "Attention: Water and Environmental Programs."

Application guides and materials for the HWWS Grant Program may be obtained electronically through *http://www.usda.gov/rus/water/well.htm.* Call (202) 720–9589 to request paper copies of application guides and materials from the Water and Environmental Programs staff.

FOR FURTHER INFORMATION CONTACT: Lorrie Davis, Community Programs Specialist, U.S. Department of Agriculture, RUS Programs, Water and Environmental Programs, *telephone:* (202) 720–9631, *fax:* (202) 690–0649, *e-mail: Lorrie.davis@wdc.usda.gov.*

SUPPLEMENTARY INFORMATION:

Overview

Federal Agency: Rural Utilities Service.

Funding Opportunity Title: HWWS Grant Program.

Announcement Type: Grant—Initial.

Catalog of Federal Domestic Assistance (CFDA) Number: 10.862.

Due Date for Applications: May 31, 2010.

Items in Supplementary Information

I. Funding Opportunity: Description of the HWWS Grant Program.
II. Award Information: Available funds.
III. Eligibility Information: Who is eligible, what kinds of projects are eligible, what criteria determine basic eligibility.
IV. Application and Submission Information: Where to get application materials, what constitutes a completed application, how and where to submit applications, deadlines, items that are eligible.
V. Application Review Information: Considerations and preferences, scoring criteria, review standards, selection information.
VI. Award Administration Information: Award notice information, award recipient reporting requirements.
VII. Agency Contacts: Web, phone, fax, e-mail, contact name.

I. Funding Opportunity

A. Program Description

The HWWS Grant Program has been established to help individuals with low to moderate incomes finance the costs of household water wells that they own or will own. The HWWS Grant Program is authorized under Section 306E of the Consolidated Farm and Rural Development Act (CONACT), 7 U.S.C. 1926e. The CONACT authorizes the RUS to make grants to qualified private non-profit organizations to establish lending programs for household water wells.

As the grant recipients, private non-profit organizations will receive HWWS grants to establish lending programs that will provide water well loans to individuals. The individuals, as loan recipients, may use the loans to construct, refurbish, and service their household well systems. A loan may not exceed $11,000 and will have a term up to 20 years at a one percent annual interest rate.

B. Background

The RUS supports the sound development of rural communities and the growth of our economy without endangering the environment. The RUS provides financial and technical assistance to help communities bring safe drinking water and sanitary, environmentally sound waste disposal facilities to rural Americans in greatest need.

Central water systems may not be the only or best solution to drinking water problems. Distance or physical barriers make public central water systems expensive in remote areas. A significant

number of geographically isolated households without water service might require individual wells rather than connections to new or existing community systems. The goal of the RUS is not only to make funds available to those communities most in need of potable water but also to ensure that facilities used to deliver drinking water are safe and affordable. There is a role for private wells in reaching this goal.

C. Purpose

The purpose of the HWWS Grant Program is to provide funds to private non-profit organizations to assist them in establishing loan programs from which individuals may borrow money for HWWS. Faith-based organizations are eligible and encouraged to apply for this program. Applicants must show that the project will provide technical and financial assistance to eligible individuals to remedy household well problems.

Due to the limited amount of funds available under the HWWS Grant Program, five applications may be funded from FY 2010 funds. Previously funded grant recipients must apply for a different target area to be considered for funding under this announcement.

II. Award Information

Funding Instrument Type: Grant.

Anticipated Total Priority Area Funding: Undetermined at this time.

Anticipated Number of Awards: 5.

Length of Project Periods: 12-month project.

Assistance Instrument: Grant Agreement with successful applicants before any grant funds are disbursed.

III. Eligibility Information

A. Who Is Eligible for Grants?

1. An organization is eligible to receive a HWWS grant if it:

a. Is a private, non-profit organization;

b. Is legally established and located within one of the following:

(1) A state within the United States

(2) The District of Columbia

(3) The Commonwealth of Puerto Rico

(4) A United States territory

c. Has the legal capacity and authority to carry out the grant purpose;

d. Has sufficient expertise and experience in lending activities;

e. Has sufficient expertise and experience in promoting the safe and productive use of individually-owned HWWS and ground water;

f. Has no delinquent debt to the Federal Government or no outstanding judgments to repay a Federal debt;

g. Demonstrates that it possesses the financial, technical, and managerial capability to comply with Federal and State laws and requirements.

2. An individual is ineligible to receive a Household Water Well grant. An individual may receive only a loan.

B. What are the basic eligibility requirements for a project?

1. *Project Eligibility.* To be eligible for a grant, the project must:

a. Be a revolving loan fund created to provide loans to eligible individuals to construct, refurbish, and service individually-owned HWWS (*see* 7 CFR 1776.11 and 1776.12). Loans may not be provided for home sewer or septic system projects.

b. Be established and maintained by a private, non-profit organization.

c. Be located in a rural area. Rural area is defined as locations other than cities or towns of more than 50,000 people and the contiguous and adjacent urbanized area of such towns and cities.

2. *Required Matching Contributions.* Grant applicants must provide written evidence of a matching contribution of at least 10 percent from sources other than the proceeds of a HWWS grant. In-kind contributions will not be considered for the matching requirement. *Please see* 7 CFR 1776.9 for the requirement.

3. *Other—Requirements*

a. DUNS Number. An organization must have a Dun and Bradstreet Data Universal Numbering System (DUNS) number. A DUNS number will be required whether an applicant is submitting a paper application or an electronic application through *http://www.grants.gov.* To verify that your organization has a DUNS number or to receive one at no cost, call the dedicated toll-free request line at 1–866–705–5711 or request one on-line at *http://www.dnb.com.*

b. Eligibility for Loans. Individuals are not eligible for grants but are eligible for loans. To be eligible for a loan, an individual must:

(1) Be a member of a household of which the combined household income of all members does not exceed 100 percent of the median non-metropolitan household income for the State or territory in which the individual resides. Household income is the total income from all sources received by each adult household member for the most recent 12-month period for which the information is available. It does not include income earned or received by dependent children under 18 years old or other benefits that are excluded by Federal law. The non-metropolitan household income must be based on the most recent decennial census of the United States.

RUS publishes a list of income exclusions in 7 CFR 3550.54(b). Also, the Department of Housing and Urban Development published a list of income exclusions in the **Federal Register.** See "Federally Mandated Exclusions" Notice 66 FR 4669, April 20, 2001, pages 20318–20320.

(2) Own and occupy the home being improved with the proceeds of the Household Water Well loan or be purchasing the home to occupy under a legally enforceable land purchase contract which is not in default by either the seller or the purchaser.

(3) Own the home in a rural area.

(4) Not use the loan for a water well system associated with the construction of a new dwelling.

(5) Not use the loan to substitute a well for water service available from collective water systems. (For example, a loan may not be used to restore an old well abandoned when a dwelling was connected to a water district's water line.)

(6) Not be suspended or debarred from participation in Federal programs.

IV. Application and Submission Information

A. Where To Get Application Information

The Household Water Well System Grant Application Guide (Application Guide), copies of necessary forms and samples, and the HWWS Grant Program regulation are available from these sources:

1. On-line for electronic copies: *http://www.grants.gov* or *http://www.usda.gov/rus/water/well.htm,* and

2. RUS for paper copies: RUS, Water Programs Division, Room 2234 South, Stop 1570, 1400 Independence Avenue, SW., Washington, DC 20250–1570, *Telephone:* (202) 720–9589, *Fax:* (202) 690–0649.

B. Content and Form of Application Submission

1. Rules and Guidelines

a. Detailed information on each item required can be found in the HWWS Grant Program regulation (7 CFR 1776) and the Application Guide. Applicants are strongly encouraged to read and apply both the regulation and the application guide. This Notice does not change the requirements for a completed application for any form of HWWS financial assistance specified in the regulation. The regulation and application guide provide specific guidance on each of the items listed.

b. Applications should be prepared in conformance with the provisions in 7

CFR 1776, subpart B, and applicable regulations including 7 CFR parts 3015 and 3019. Applicants should use the application guide which contains instructions and other important information in preparing their application. Completed applications must include the items found in the checklist in the next paragraph.

2. Checklist of Items in Completed Application Packages

The forms in items a. through f. must be completed and signed where appropriate by an official of your organization who has authority to obligate the organization legally. The forms may be found on-line at the RUS Web site: *http://www.usda.gov/rus/water/wwforms.htm. See* section V, "Application Review Information," for instructions and guidelines on preparing Items g. through m.

Application Items

a. SF–424, "Application for Federal Assistance"
b. SF–424A, "Budget Information—Non-Construction Programs"
c. SF–424B, "Assurances—Non-Construction Programs"
d. SF–LLL, "Disclosure of Lobbying Activity"
e. Form RD 400–1, "Equal Opportunity Agreement"
f. Form RD 400–4, "Assurance Agreement (Under Title VI, Civil Rights Act of 1964)
g. Project Proposal, Project Summary, Needs Assessment, Project Goals and Objectives, Project Narrative
h. Work Plan
i. Budget and Budget Justification
j. Evidence of Legal Authority and Existence
k. Documentation of private non-profit status and Internal Revenue Service (IRS) Tax Exempt Status
l. List of Directors and Officers
m. Financial information and sustainability (narrative)
n. Assurances and Certifications of Compliance with Other Federal Statutes

3. Compliance with Other Federal Statutes

The applicant must provide evidence of compliance with other Federal statutes and regulations, including, but not limited to the following:

a. 7 CFR part 15, subpart A—Nondiscrimination in Federally Assisted Programs of the Department of Agriculture—Effectuation of Title VI of the Civil Rights Act of 1964

b. 7 CFR part 3015—Uniform Federal Assistance Regulations

c. 7 CFR part 3017—Government-wide Debarment and Suspension (Non-procurement)

d. 7 CFR part 3018—New Restrictions on Lobbying

e. 7 CFR part 3019—Uniform Administrative Requirements for Grants and Other Agreements with Institutions of Higher Education, Hospitals, and Non-profit Organizations

f. 7 CFR part 3021—Government-wide Requirements for Drug-Free Workplace (Financial Assistance)

g. Executive Order 13166, "Improving Access to Services for Persons with Limited English Proficiency. "For information on limited English proficiency and agency-specific guidance, go to *http://www.LEP.gov*

h. Federal Obligation Certification on Delinquent Debt

C. How Many Copies of an Application Are Required?

1. *Applications Submitted on Paper.* Submit one signed original and two additional copies. The original and each of the two copies must include all required forms, certifications, assurances, and appendices, be signed by an authorized representative, and have original signatures. Do not include organizational brochures or promotional materials.

2. *Applications Submitted Electronically.* The additional paper copies are unnecessary if the application is submitted electronically through *http://www.grants.gov.*

D. How and Where To Submit an Application

1. Submitting Paper Applications

a. For paper applications mail or ensure delivery of an original paper application (no stamped, photocopied, or initialed signatures) and two copies by the deadline date to: RUS, Water Programs Division, Room 2234 South, Stop 1570, 1400 Independence Avenue, SW., Washington, DC 20250–1570.

b. Applications must show proof of mailing or shipping by one of the following:

(1) A legibly dated U.S. Postal Service (USPS) postmark;

(2) A legible mail receipt with the date of mailing stamped by the USPS; or

(3) A dated shipping label, invoice, or receipt from a commercial carrier.

c. If a deadline date falls on a weekend, it will be extended to the following Monday. If the date falls on a Federal holiday, it will be extended to the next business day.

d. Due to screening procedures at the Department of Agriculture, packages arriving via the USPS are irradiated, which can damage the contents. RUS encourages applicants to consider the impact of this procedure in selecting an application delivery method.

2. Submitting Electronic Applications

a. Applications will not be accepted via facsimile machine transmission or electronic mail.

b. Electronic applications for grants will be accepted if submitted through Grants.gov at *http://www.grants.gov.*

c. Applicants who apply through Grants.gov should submit their applications before the deadline.

d. Grants.gov contains full instructions on all required passwords, credentialing, and software. Follow the instructions at Grants.gov for registering and submitting an electronic application. RUS may request original signatures on electronically submitted documents later.

e. To use Grants.gov:

(1) Follow the instructions on the Web site to find grant information.

(2) Download a copy of an application package.

(3) Complete the package off-line.

(4) Upload and submit the application via the Grants.gov Web site.

f. You must be registered with Grants.gov before you can submit a grant application.

(1) You will need a DUNS number to access or register at any of the services. In addition to the DUNS number required of all grant applicants, your organization must be listed in the Central Contractor Registry (CCR). If you have not used Grants.gov before, you will need to register with the CCR and the Credential Provider. Setting up a CCR listing (a one-time procedure with annual updates) takes up to five business days. RUS recommends that you obtain your organization's DUNS number and CCR listing well in advance of the deadline specified in this notice.

(2) The CCR registers your organization, housing your organizational information and allowing Grants.gov to use it to verify your identity. You may register for the CCR by calling the CCR Assistance Center at 1–888–227–2423 or you may register online at *http://www.ccr.gov.*

(3) The Credential Provider gives you or your representative a username and password, as part of the Federal Government's e-Authentication to ensure a secure transaction. You will need the username and password when you register with Grants.gov or use Grants.gov to submit your application. You must register with the Central Provider through Grants.gov at *https://apply.grants.gov/OrcRegister.*

(4) If a system problem or technical difficulty occurs with an electronic application, please use the customer support resources available at the Grants.gov Web site.

E. Deadlines

The deadline for paper and electronic submissions is May 31, 2010. Paper applications must be postmarked and mailed, shipped, or sent overnight no later than the closing date to be considered for FY 2010 grant funding. Electronic applications must have an electronic date and time stamp by midnight of May 31, 2010, to be considered on time. RUS will not accept applications by fax or e-mail. Applications that do not meet the criteria above are considered late applications and will not be considered. RUS will notify each late applicant that its application will not be considered.

F. Funding Restrictions

1. Eligible Grant Purposes

a. Grant funds must be used to establish and maintain a revolving loan fund to provide loans to eligible individuals for household water well systems.

b. Individuals may use the loans to construct, refurbish, rehabilitate, or replace household water well systems up to the point of entry of a home. Point of entry for the well system is the junction where water enters into a home water delivery system after being pumped from a well.

c. Grant funds may be used to pay administrative expenses associated with providing Household Water Well loans.

2. Ineligible Grant Purposes

a. Administrative expenses incurred in any calendar year that exceeds 10 percent of the household water well loans made during the same period do not qualify for reimbursement.

b. Administrative expenses incurred before RUS executes a grant agreement with the recipient do not qualify for reimbursement.

c. Delinquent debt owed to the Federal Government does not qualify for reimbursement.

d. Grant funds may not be used to provide loans for household sewer or septic systems.

e. Household Water Well loans may not be used to pay the costs of water well systems for the construction of a new house.

f. Household Water Well loans may not be used to pay the costs of a home plumbing system.

V. Application Review Information

A. Criteria

This section contains instructions and guidelines on preparing the project proposal, work plan, and budget sections of the application. Also, guidelines are provided on the additional information required for RUS to determine eligibility and financial feasibility.

1. *Project Proposal.* The project proposal should outline the project in sufficient detail to provide a reader with a complete understanding of the loan program. Explain what will be accomplished by lending funds to individual well owners. Demonstrate the feasibility of the proposed loan program in meeting the objectives of this grant program. The proposal should include the following elements:

a. *Project Summary.* Present a brief project overview. Explain the purpose of the project, how it relates to RUS' purposes, how the project will be executed, what the project will produce, and who will direct it.

b. *Needs Assessment.* To show why the project is necessary, clearly identify the economic, social, financial, or other problems that require solutions. Demonstrate the well owners' need for financial and technical assistance. Quantify the number of prospective borrowers or provide statistical or narrative evidence that a sufficient number of borrowers will exist to justify the grant award. Describe the service area. Provide information on the household income of the area and other demographical information. Address community needs.

c. *Project Goals and Objectives.* Clearly state the project goals. The objectives should clearly describe the goals and be concrete and specific enough to be quantitative or observable. They should also be feasible and relate to the purpose of the grant and loan program.

d. *Project Narrative.* The narrative should cover in more detail the items briefly described in the Project Summary. Demonstrate the grant applicant's experience and expertise in promoting the safe and productive use of individually-owned household water well systems. The narrative should address the following points:

(1) Document the grant applicant's ability to manage and service a revolving fund. The narrative may describe the systems that are in place for the full life cycle of a loan from loan origination through servicing. If a servicing contractor will service the loan portfolio, the arrangement and services provided must be discussed.

(2) Show evidence that the organization can commit financial resources the organization controls. This documentation should describe the sources of funds other than the HWWS grant that will be used to pay your operational costs and provide financial assistance for projects.

(3) Demonstrate that the organization has secured commitments of significant financial support from other funding sources, if appropriate.

(4) List the fees and charges that borrowers will be assessed.

2. *Work Plan.* The work plan or scope of work must describe the tasks and activities that will be accomplished with available resources during the grant period. It must include who will carry out the activities and services to be performed and specific timeframes for completion. Describe any unusual or unique features of the project such as innovations, reductions in cost or time, or extraordinary community involvement.

3. *Budget and Budget Justification.* Both Federal and non-Federal resources shall be detailed and justified in the budget and narrative justification. "Federal resources" refers only to the HWWS Grant Program for which you are applying. "Non Federal resources" are all other Federal and non-Federal resources.

a. Provide a budget with line item detail and detailed calculations for each budget object class identified in section B of the Budget Information form (SF–424A). Detailed calculations must include estimation methods, quantities, unit costs, and other similar quantitative detail sufficient for the calculation to be duplicated. Also include a breakout by the funding sources identified in Block 15 of the SF–424.

b. Provide a narrative budget justification that describes how the categorical costs are derived for all capital and administrative expenditures, the matching contribution, and other sources of funds necessary to complete the project. Discuss the necessity, reasonableness, and allocability of the proposed costs. Consult OMB Circular A–122: "Cost Principles for Non-Profit Organizations" for information about appropriate costs for each budget category.

c. If the grant applicant will use a servicing contractor, the fees may be reimbursed as an administrative expense as provided in 7 CFR 1776.13. These fees must be discussed in the budget narrative. If the grant applicant will hire a servicing contractor, it must demonstrate that all procurement transactions will be conducted in a manner to provide, to the maximum

extent practical, open and free competition. Recipients must justify any anticipated procurement action that is expected to be awarded without competition and exceed the simplified acquisition threshold fixed at 41 U.S.C. 403(11) (currently set at $100,000).

d. The indirect cost category should be used only when the grant applicant currently has an indirect cost rate approved by the Department of Agriculture or another cognizant Federal agency. A grant applicant that will charge indirect costs to the grant must enclose a copy of the current rate agreement. If the grant applicant is in the process of initially developing or renegotiating a rate, the grant applicant shall submit its indirect cost proposal to the cognizant agency immediately after the applicant is advised that an award will be made. In no event, shall the indirect cost proposal be submitted later than three months after the effective date of the award. Consult OMB Circular A–122 for information about indirect costs.

4. *Evidence of Legal Authority and Existence.* The applicant must provide satisfactory documentation that it is legally recognized under state and Federal law as a private non-profit organization. The documentation also must show that it has the authority to enter into a grant agreement with the RUS and to perform the activities proposed under the grant application. Satisfactory documentation includes, but is not limited to, certificates from the Secretary of State, copies of state statutes or laws establishing your organization, and copies of your organization's articles of incorporation and bylaws. Letters from IRS awarding tax-exempt status are not considered adequate evidence.

5. *List of Directors and Officers.* The applicant must submit a certified list of directors and officers with their respective terms.

6. *IRS Tax Exempt Status.* The applicant must submit evidence of tax exempt status from the Internal Revenue Service.

7. *Financial Information and Sustainability.* The applicant must submit pro forma balance sheets, income statements, and cash flow statements for the last three years and projections for three years. Additionally, the most recent audit of the applicant's organization must be submitted.

B. Evaluation Criteria

Grant applications that are complete and eligible will be scored competitively based on the following scoring criteria:

Scoring criteria	Points
Degree of expertise and experience in promoting the safe and productive use of individually-owned household water well systems and ground water.	Up to 30 points.
Degree of expertise and successful experience in making and servicing loans to individuals	Up to 20 points.
Percentage of applicant contributions. Points allowed under this paragraph will be based on written evidence of the availability of funds from sources other than the proceeds of a HWWS grant to pay part of the cost of a loan recipient's project. In-kind contributions will not be considered. Funds from other sources as a percentage of the HWWS grant and points corresponding to such percentages are as follows:	
0 to 9 percent	Ineligible.
10 to 25 percent	5 points.
26 to 30 percent	10 points.
31 to 50 percent	15 points.
51 percent or more	20 points.
Extent to which the work plan demonstrates a well thought out, comprehensive approach to accomplishing the objectives of this part, clearly defines who will be served by the project, and appears likely to be sustainable.	Up to 20 points.
Extent to which the goals and objectives are clearly defined, tied to the work plan, and measurable	Up to 10 points.
Lowest ratio of projected administrative expenses to loans advanced	Up to 10 points.
Administrator's discretion, considering such factors as: Creative outreach ideas for marketing HWWS loans to rural residents; The amount of needs demonstrated in the work plan; Previous experiences demonstrating excellent utilization of a revolving loan fund grant; and Optimizing the use of agency resources.	Up to 10 points.

C. Review Standards

1. Incomplete applications as of the deadline for submission will not be considered. If an application is determined to be incomplete, the applicant will be notified in writing and the application will be returned with no further action.

2. Ineligible applications will be returned to the applicant with an explanation.

3. Complete, eligible applications will be evaluated competitively by a review team, composed of at least two RUS employees selected from the Water Programs Division. They will make overall recommendations based on the program elements found in 7 CFR part 1776 and the review criteria presented in this notice. They will award points as described in the scoring criteria in 7 CFR 1776.9 and this notice. Each application will receive a score based on the averages of the reviewers' scores and discretionary points awarded by the RUS Administrator.

4. Applications will be ranked and grants awarded in rank order until all grant funds are expended.

5. Regardless of the score an application receives, if RUS determines that the project is technically infeasible, RUS will notify the applicant, in writing, and the application will be returned with no further action.

VI. Award Administration Information

A. Award Notices

RUS will notify a successful applicant by an award letter accompanied by a grant agreement. The grant agreement will contain the terms and conditions for the grant. The applicant must execute and return the grant agreement, accompanied by any additional items required by the award letter or grant agreement.

B. Administrative and National Policy Requirements

1. This notice, the 7 CFR part 1776, and the application guide implement the appropriate administrative and national policy requirements. Grant recipients are subject to the requirements in 7 CFR part 1776.

2. Direct Federal grants, sub-award funds, or contracts under the HWWS Grant Program shall not be used to fund inherently religious activities, such as worship, religious instruction, or proselytization. Therefore, organizations that receive direct assistance should

take steps to separate, in time or location, their inherently religious activities from the services funded under the HWWS Grant Program. Regulations for the Equal Treatment for Faith-based Organizations are contained in 7 CFR part 16, which includes the prohibition against Federal funding of inherently religious activities. The regulation may be accessed at the Web site at *http://www.rurdev.usda.gov/rd/fbnp/usdafbci070904.html.*

C. Reporting

1. *Performance Reporting.* All recipients of HWWS Grant Program financial assistance must provide quarterly performance activity reports to RUS until the project is complete and the funds are expended. A final performance report is also required. The final report may serve as the last annual report. The final report must include an evaluation of the success of the project.

2. *Financial Reporting.* All recipients of HWWS Grant Program financial assistance must provide an annual audit, beginning with the first year a portion of the financial assistance is expended. The grantee will provide an audit report or financial statements as follows:

a. Grantees expending $500,000 or more Federal funds per fiscal year will submit an audit conducted in accordance with OMB Circular A–133. The audit will be submitted within 9 months after the grantee's fiscal year. Additional audits may be required if the project period covers more than one fiscal year.

b. Grantees expending less than $500,000 will provide annual financial statements covering the grant period, consisting of the organization's statement of income and expense and balance sheet signed by an appropriate official of the organization. Financial statements will be submitted within 90 days after the grantee's fiscal year.

VII. Agency Contacts

A. *Web site: http://www.usda.gov/rus/water.* The RUS Web site maintains up-to-date resources and contact information for the HWWS Grant Program.

B. *Phone:* 202–720–9589.

C. *Fax:* 202–690–0649.

D. *E-mail: lorrie.davis@wdc.usda.gov.*

E. *Main point of contact:* Lorrie Davis, Community Programs Specialist, Water and Environmental Programs, Water Programs Division, RUS, U.S. Department of Agriculture.

Dated: March 8, 2010.

Jonathan Adelstein,

Administrator, Rural Utilities Service.

[FR Doc. 2010–6685 Filed 3–25–10; 8:45 am]

BILLING CODE P

DEPARTMENT OF AGRICULTURE

Farm Service Agency

Dairy Industry Advisory Committee; Public Meeting

AGENCY: Farm Service Agency, USDA.

ACTION: Notice of public meeting.

SUMMARY: As required by the Federal Advisory Committee Act, as amended, the Farm Service Agency (FSA) announces a public meeting of the newly established Dairy Industry Advisory Committee (Dairy Committee) to review the current state of the dairy industry, discuss current dairy programs of the U.S. Department of Agriculture (USDA) and Federal dairy policy, hear proposals from the dairy industry, and hear public comments. The Dairy Committee is responsible for advising the Secretary on these issues.

DATES: *Public meeting:* April 13 through April 15, 2010.

Registration: To attend the meeting, register by April 6, 2010.

Comments: We will consider comments that we receive by April 15, 2010.

ADDRESSES: We invite you to participate in the meeting and to submit comments. The public meeting location is: The USDA headquarters, in the Jamie L. Whitten Building, Room 104–A, 12th Street SW. and Jefferson Drive, Washington, DC 20250. The meeting is open to the public. Instructions regarding registering for and attending the meeting are in the **SUPPLEMENTARY INFORMATION** section of this notice.

You may submit comments by any of the following methods:

- *Online:* Go to *http://www.fsa.usda.gov/DIAC.* Follow the online instructions for submitting comments,
- *E-mail: DIAC@wdc.usda.gov,* or
- Orally at the meeting; please also provide a written copy of your comments.

FOR FURTHER INFORMATION CONTACT: Solomon Whitfield, Designated Federal Official; phone: (202) 720–9886; e-mail: *solomon.whitfield@wdc.usda.gov.* Persons with disabilities who require alternative means for communication (Braille, large print, audio tape, *etc.*) should contact the USDA Target Center at (202) 720–2600 (voice and TDD).

SUPPLEMENTARY INFORMATION: In August 2009, USDA established the Dairy Committee. The Dairy Committee will review the issues of farm milk price volatility and dairy farmer profitability. The Dairy Committee will provide recommendations to the Secretary on how USDA can best address these issues to meet the dairy industry's needs.

The Dairy Committee will hold its first meeting April 13 through April 15, 2010, from 8:30 a.m. to 5 p.m. each day. The purpose of the meeting is to:

- Discuss the current state of the dairy industry,
- Review current USDA programs and Federal dairy policy,
- Hear proposals from dairy industry groups, and
- Allow comments from the public.

The meeting is open to the public. The dairy industry and public are invited to provide comments at either the meeting on April 15, 2010, or through any of the addresses listed above.

Instructions for Attending the Meeting

Space for attendance at the meeting is limited. Due to USDA headquarters security and space requirements, all persons wishing to attend the meeting must send an e-mail to *DIAC@wdc.usda.gov* by April 6, 2010, to register the names of those planning to attend. Registrations will be accepted until maximum room capacity is reached. Upon arrival at the USDA Whitten Building, registered persons must provide a valid photo ID in order to enter. Additional information about the public meeting, including directions and how to provide comments is available at the Dairy Committee Web site: *http://www.fsa.usda.gov/DIAC.*

Meeting agenda, materials, and minutes will be made available on the Web site for meetings, as available.

The Secretary of Agriculture selected a diverse group of members representing a broad spectrum of persons interested in providing suggestions and ideas on how USDA can tailor its programs to meet the dairy industry's needs. Equal opportunity practices were considered in all appointments to the Dairy Committee in accordance with USDA policies. The Secretary announced the members on January 6, 2010. Representatives include: producers and producer organizations, processors and processor organizations, consumers, academia, retailers, and a State representative.

If you require special accommodations, such as a sign language interpreter, please use the contact information above.

Notice of this meeting is provided in accordance with section 10(a)(2) of the Federal Advisory Committee Act (Pub. L. 92–463).

Signed in Washington, DC on March 18, 2010.

Jonathan W. Coppess,

Administrator, Farm Service Agency.

[FR Doc. 2010–6680 Filed 3–25–10; 8:45 am]

BILLING CODE 3410–05–P

COMMISSION ON CIVIL RIGHTS

Agenda and Notice of Public Meeting of the California 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 meeting of the California Advisory Committee to the Commission will convene at 10 a.m. and adjourn at 3:15 p.m. on Thursday, April 29, 2010, at the Kyoto Grand Hotel, 120 S. Los Angeles Street, Los Angeles, CA. The purpose of the meeting is for the Committee to receive a briefing regarding free speech on California college campuses and universities.

The briefing will be transcribed and a transcript of the proceedings will be produced and made available to the public. Members of the public are entitled to submit written comments and such comments will be considered part of the official transcript. Comments must be received in the Western Regional Office by May 31, 2010. The address is 300 N. Los Angeles St., Suite 2100, Los Angeles, CA 90012. Persons wishing to e-mail their comments may do so by submitting them to *pminarik@usccr.gov.* Persons who desire to obtain a copy of the agenda of the meeting or additional information should contact Angelina Trevino, Administrative Assistant, Western Regional Office, at (213) 894–3437 or by *e-mail: atrevino@usccr.gov.*

Hearing-impaired persons who will attend the meeting and require the services of a sign language interpreter should contact the Western 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 Western 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 Western 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, March 23, 2010.

Peter Minarik,

Acting Chief, Regional Programs Coordination Unit.

[FR Doc. 2010–6695 Filed 3–25–10; 8:45 am]

BILLING CODE 6335–02–P

DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

[Docket Number: 100311133–0142–01]

NIST Summer Institute for Middle School Science Teachers; Availability of Funds

AGENCY: National Institute of Standards and Technology, Commerce.

ACTION: Notice.

SUMMARY: The National Institute of Standards and Technology (NIST) announces the availability of Federal assistance for educational institutions to provide limited support for middle school science teachers to attend the NIST Summer Institute for Middle School Science Teachers. Teachers from qualified applicants should be involved in teaching areas of science, technology, engineering and mathematics (STEM) at the middle school level (grades 6–8), including, but not limited to, earth science, physical science, chemistry, physics, and/or biology. This program responds to a need for these targeted teachers to receive instruction and activities that will encourage them to inspire students to pursue careers in STEM fields.

DATES: Proposals must be received at the address listed below no later than 5 p.m. Eastern Time on April 26, 2010.

ADDRESSES: Hard copies of proposals must be submitted to: Dr. Susan Heller-Zeisler, Office of International and Academic Affairs, National Institute of Standards and Technology, 100 Bureau Drive, Mailstop 8190, Gaithersburg, Maryland 20899–1090. Electronic submissions of full proposals may be uploaded to *http://www.Grants.gov.*

FOR FURTHER INFORMATION CONTACT: A paper copy of the Federal Funding Opportunity (FFO) announcement may be obtained by calling (301) 975–3111. Technical questions should be addressed to: Dr. Susan F. Heller-Zeisler at the address listed in the **ADDRESSES** section above, or at Tel: (301) 975–3111; E-mail: *szeisler@nist.gov.* Grants Administration questions should be addressed to: Grants and Agreements Management Division; National Institute of Standards and Technology; 100 Bureau Drive, Stop 1650; Gaithersburg, MD 20899–1650; Tel: (301) 975–6328. For assistance with using *Grants.gov* contact *support@grants.gov* or call 800–518–4726.

SUPPLEMENTARY INFORMATION:

Statutory Authority: 15 U.S.C. 278g–2a, 15 U.S.C. 272(b)(4)

Catalog of Federal Domestic Assistance Name and Number Catalog of Federal Domestic Assistance (CFDA) Number: 11.609.

Program Description: The National Institute of Standards and Technology (NIST) is soliciting applications from qualified public school districts or accredited private educational institutions that are teaching students in the areas of Science, Technology, Engineering and Mathematics (STEM) at the middle school level (Grades 6–8). This includes, but is not limited to, earth science, physical science, chemistry, physics and/or biology. NIST will award funding that will support the attendance of middle school teachers in the NIST Summer Institute for Middle School Science Teachers (NIST SI), to be held July 6–19, 2010 to be held at the NIST Gaithersburg, Maryland, campus. Please see additional information about this program in the corresponding Federal Funding Opportunity (FFO).

Electronic access: Applicants are strongly encouraged to read the Federal Funding Opportunity (FFO) available at *http://www.grants.gov* for complete information about this program, all program requirements, and instructions for applying by paper or electronically.

Funding Availability: NIST anticipates spending $40,000 this year for awards to support a total of twenty teachers to attend the NIST SI from July 6–19, 2010. Publication of this announcement does not oblige NIST or the Department of Commerce to award any specific project or to obligate any available funds.

Award start dates for new grants are expected to be June 25, 2010. NIST plans to fund the awards as cooperative agreements.

Eligibility: The NIST Summer Institute for Middle School Science Teachers grant program is open to public school districts and private educational institutions teaching at the middle school level. Such schools may offer instruction in general science fields including earth science, physical science, chemistry, physics, and/or biology. Participating teachers from the applicant school districts or private

educational institutes must be U.S. citizens or permanent U.S. residents.

Teachers proposed within the applications for participation in the NIST SI must be employed for the 2010–2011 school year to teach middle school science or math (grades 6, 7, and/or 8) in a public or private school. The topics taught may include earth science, physical science, chemistry, physics, and/or biology.

Please note that no support will be offered for transportation or housing costs accrued by the participating teachers.

Cost Sharing or Matching: The NIST SI does not require any cost sharing or matching funds.

Review and Selection Process:

Upon receipt of an application submitted by an eligible institution, NIST will assign each teacher proposed for participation in the NIST SI an identification code without bias. NIST will fill the 20 available slots for the Summer Institute by randomly selecting from the assigned codes using a blind selection process. The amount of the grant awarded to an institution will be determined by the number of teachers who are selected from that institution's application.

The final selection of institutions and awarding of grants will be made by the NIST Grants Officer in Gaithersburg, Maryland, based on compliance with application requirements, as published in this notice, and applicable legal and regulatory requirements. Unsatisfactory performance on any previous Federal award may result in an application not being considered for funding. Applicants may be asked to provide supplemental information required by the agency prior to award. The decision of the Grants Officer is final. Applicants should allow up to 45 days processing time.

The decision of the Grants Officer is final.

The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements: The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements, which are contained in the **Federal Register** Notice of February 11, 2008 (73 FR 7696), are applicable to this notice. On the form SF–424 items 8.b. and 8.c., the applicant's 9-digit Employer/Taxpayer Identification Number (EIN/TIN) and 9-digit Dun and Bradstreet Data Universal Numbering System (DUNS) number must be consistent with the information on the Central Contractor Registration (CCR) (*http://www.ccr.gov*) and Automated Standard Application for Payment System (ASAP). For complex organizations with multiple EIN/TIN and DUNS numbers, the EIN/TIN and DUNS number MUST be the numbers for the applying organization. Organizations that provide incorrect/inconsistent EIN/TIN and DUNS numbers may experience significant delays in receiving funds if their proposal is selected for funding. Please confirm that the EIN/TIN and DUNS number are consistent with the information on the CCR and ASAP.

Use of NIST Intellectual Property: If the applicant anticipates using any NIST-owned intellectual property to carry out the work proposed, the applicant should identify such intellectual property. This information will be used to ensure that no NIST employee involved in the development of the intellectual property will participate in the review process for that competition. In addition, if the applicant intends to use NIST-owned intellectual property, the applicant must comply with all statutes and regulations governing the licensing of Federal government patents and inventions, described at 35 U.S.C. 200–212, 37 CFR part 401, 15 CFR 14.36, and in Section B.21 of the Department of Commerce Pre-Award Notification Requirements 73 FR 7696 (February 11, 2008). Questions about these requirements may be directed to the Office of the Chief Counsel for NIST, 301–975–2803.

Any use of NIST-owned intellectual property by a proposer is at the sole discretion of NIST and will be negotiated on a case-by-case basis if a project is deemed meritorious. The applicant should indicate within the statement of work whether it already has a license to use such intellectual property or whether it intends to seek one.

If any inventions made in whole or in part by a NIST employee arise in the course of an award made pursuant to this notice, the United States government may retain its ownership rights in any such invention. Licensing or other disposition of NIST's rights in such inventions will be determined solely by NIST, and include the possibility of NIST putting the intellectual property into the public domain.

Paperwork Reduction Act: The standard forms in the application kit involve a collection of information subject to the Paperwork Reduction Act. The use of Standard Forms 424, 424A, 424B, 424 (R&R), SF–LLL, and CD–346 have been approved by OMB under the respective Control Numbers 0348–0043, 0348–0044, 0348–0040, 4040–0001, 0348–0046, and 0605–0001.

Notwithstanding any other provision of the law, 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, unless that collection of information displays a currently valid OMB Control Number.

Research Projects Involving Human Subjects, Human Tissue, Data or Recordings Involving Human Subjects: Any proposal that includes research involving human subjects, human tissue, data or recordings involving human subjects must meet the requirements of the Common Rule for the Protection of Human Subjects, codified for the Department of Commerce at 15 CFR part 27. In addition, any proposal that includes research on these topics must be in compliance with any statutory requirements imposed upon the Department of Health and Human Services (DHHS) and other federal agencies regarding these topics, all regulatory policies and guidance adopted by DHHS, the Food and Drug Administration, and other Federal agencies on these topics, and all Presidential statements of policy on these topics.

NIST will accept the submission of human subjects protocols that have been approved by Institutional Review Boards (IRBs) possessing a current registration filed with DHHS and to be performed by institutions possessing a current registration filed with DHHS and to be performed by institutions possessing a current, valid Federal-wide Assurance (FWA) from DHHS. NIST will not issue a single project assurance (SPA) for any IRB reviewing any human subjects protocol proposed to NIST.

President Obama has issued Executive Order No. 13,505 (74 FR 10667, March 9, 2009), revoking previous Executive Orders and Presidential statements regarding the use of human embryonic stem cells in research. On July 30, 2009, President Obama issued a memorandum directing that agencies that support and conduct stem cell research adopt the "National Institutes of Health Guidelines for Human Stem Cell Research" (NIH Guidelines), which became effective on July 7, 2009, "to the fullest extent practicable in light of legal authorities and obligations." On September 21, 2009, the Department of Commerce submitted to the Office of Management and Budget a statement of compliance with the NIH Guidelines. In accordance with the President's memorandum, the NIH Guidelines, and the Department of Commerce statement of compliance, NIST will support and conduct research

using only human embryonic stem cell lines that have been approved by NIH in accordance with the NIH Guidelines and will review such research in accordance with the Common Rule and NIST implementing procedures, as appropriate. NIST will not support or conduct any type of research that the NIH Guidelines prohibit NIH from funding. NIST will follow any additional policies or guidance issued by the current Administration on this topic.

Research Projects Involving Vertebrate Animals: Any proposal that includes research involving vertebrate animals must be in compliance with the National Research Council's "Guide for the Care and Use of Laboratory Animals" which can be obtained from National Academy Press, 2101 Constitution Avenue, NW., Washington, DC 20055. In addition, such proposals must meet the requirements of the Animal Welfare Act (7 U.S.C. 2131 *et seq.*), 9 CFR parts 1, 2, and 3, and if appropriate, 21 CFR part 58. These regulations do not apply to proposed research using pre-existing images of animals or to research plans that do not include live animals that are being cared for, euthanized, or used by the project participants to accomplish research goals, teaching, or testing. These regulations also do not apply to obtaining animal materials from commercial processors of animal products or to animal cell lines or tissues from tissue banks.

Limitation of Liability: Funding for the programs listed in this notice is contingent upon the availability of Fiscal Year 2010 appropriations. The Department of Commerce and NIST will not be held responsible for application preparation costs. Publication of this announcement does not oblige NIST or the Department of Commerce to award any specific project or to obligate any available funds.

Executive Order 12866: This funding notice was determined to be not significant for purposes of Executive Order 12866.

Executive Order 13132 (Federalism): It has been determined that this notice does not contain policies with federalism implications as that term is defined in Executive Order 13132.

Executive Order 12372: Applications under this program are not subject to Executive Order 12372, "Intergovernmental Review of Federal Programs."

Administrative Procedure Act/ Regulatory Flexibility Act: Notice and comment are not required under the Administrative Procedure Act (5 U.S.C. 553) or any other law, for rules relating to public property, loans, grants, benefits or contracts (5 U.S.C. 553(a)). Because notice and comment are not required under 5 U.S.C. 553, or any other law, for rules relating to public property, loans, grants, benefits or contracts (5 U.S.C. 553(a)), a Regulatory Flexibility Analysis is not required and has not been prepared for this notice, 5 U.S.C. 601 *et seq.*

Dated: March 23, 2010.

Marc G. Stanley,

Acting Deputy Director.

[FR Doc. 2010–6749 Filed 3–25–10; 8:45 am]

BILLING CODE 3510–13–P

DEPARTMENT OF COMMERCE

International Trade Administration

[Application No. 97–10A03]

Export Trade Certificate of Review

ACTION: Notice of issuance (#97–10A03) of an amended Export Trade Certificate of Review to the Association for the Administration of Rice Quotas, Inc.

SUMMARY: The U.S. Department of Commerce issued an amended Export Trade Certificate of Review to the Association for the Administration of Rice Quotas, Inc. ("AARQ") on March 11, 2010. The Certificate has been amended ten times. The previous amendment was issued to AARQ on March 31, 2009, and published in the **Federal Register** on April 10, 2009 (74 FR 16363). The original Certificate for AARQ was issued on January 21, 1998, and published in the **Federal Register** on January 28, 1998 (63 FR 4220).

FOR FURTHER INFORMATION CONTACT: Joseph E. Flynn, Director, Office of Competition and Economic Analysis, International Trade Administration, by telephone at (202) 482–5131 (this is not a toll-free number) or by e-mail at *oetca@ita.doc.gov.*

SUPPLEMENTARY INFORMATION: Title III of the Export Trading Company Act of 1982 (15 U.S.C. Sections 4001–21) authorizes the Secretary of Commerce to issue Export Trade Certificates of Review. The regulations implementing Title III are found at 15 CFR part 325 (2008).

The Office of Competition and Economic Analysis is issuing this notice pursuant to 15 CFR 325.6(b), which requires the Department of Commerce to publish a summary of the certification in the **Federal Register.** Under Section 305(a) of the Act and 15 CFR 325.11(a), any person aggrieved by the Secretary's determination may, within 30 days of the date of this notice, bring an action in any appropriate district court of the United States to set aside the determination on the ground that the determination is erroneous.

Description of Amended Certificate

AARQ's Export Trade Certificate of Review has been amended to:

1. *Add the following companies as new Members of the Certificate within the meaning of section 325.2(1) of the Regulations (15 CFR 325.(1)):* ADM Grain Company, Decatur, Illinois (a subsidiary of Archer Daniels Midland Company) and TRC Trading Corporation, Roseville, California (a subsidiary of The Rice Company).

2. *Change the listing of the following Members:* "American Commodity Company, LLC, Robbins, California" has been amended to read "American Commodity Company, LLC, Williams, California"; "American Rice, Inc., Houston, Texas (a subsidiary of SOS Cuetara USA, Inc.)" has been amended to read "American Rice, Inc., Houston, Texas (a subsidiary of SOS Corporation Alimentaria, SA)"; "Cargill Americas, Inc., and its subsidiary CAI Trading Company LLC, Coral Gables, Florida" has been amended to read "Cargill Americas, Inc. and its subsidiary CAI Trading, LLC, Coral Gables, Florida"; "JFC International Inc., San Francisco, California (a subsidiary of Kikkoman Corp.)" has been amended to read "JFC International Inc., Los Angeles, California (a subsidiary of Kikkoman Corp.)"; and "Nidera, Inc., Stamford, Connecticut (a subsidiary of Nidera Handelscompagnie BV (Netherlands))" has been amended to read "Nidera, Inc., Wilton, Connecticut (a subsidiary of Nidera Handelscompagnie BV (Netherlands))."

Make corrections to the following Members' listings: "Itochu International Inc., New York, New York (a subsidiary of Itochu Corporation (Japan))" has been amended to read "Itochu International Inc., Portland, Oregon (a subsidiary of Itochu Corporation (Japan))"; and "Nobel Logistics USA Inc., Portland, Oregon" has been amended to read "Noble Logistics USA Inc., Portland, Oregon." The effective date of the amended certificate is December 11, 2009, the date on which AARQ's application to amend was deemed submitted. A copy of the amended certificate will be kept in the International Trade Administration's Freedom of Information Records Inspection Facility, Room 4001, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW., Washington, DC 20230.

Dated: March 15, 2010.

Joseph E. Flynn,

Director, Office of Competition and Economic Analysis.

[FR Doc. 2010–6658 Filed 3–25–10; 8:45 am]

BILLING CODE 3510–DR–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–909]

Certain Steel Nails from the People's Republic of China: Extension of Time Limit for Preliminary Results of the First Antidumping Duty Administrative Review

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

EFFECTIVE DATE: March 26, 2010.

FOR FURTHER INFORMATION CONTACT: Emeka Chukwudebe or Matthew Renkey, AD/CVD Operations, Office 9, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, DC 20230; telephone: (202) 482–0219 and (202) 482–2312, respectively.

SUPPLEMENTARY INFORMATION:

Background

On September 22, 2009, the Department of Commerce ("Department") initiated the first administrative review of the antidumping duty order on certain steel nails from the PRC encompassing 158 companies for the period, January 23, 2008, to July 31, 2009. *See Initiation of Antidumping and Countervailing Duty Administrative Reviews and Request for Revocation in Part*, 74 FR 48224, (September 22, 2009) ("*Initiation Notice*"). On February 16, 2010, the Department issued a memorandum that tolled the deadlines for all Import Administration cases by seven calendar days due to the recent Federal Government closure. *See* Memorandum for the Record from Ronald Lorentzen, DAS for Import Administration, Tolling of Administrative Deadlines as a Result of the Government Closure During the Recent Snowstorm, dated February 12, 2010. As a result, the preliminary results are currently due on May 10, 2010.

Extension of Time Limits for Preliminary Results

Section 751(a)(3)(A) of the Tariff Act of 1930, as amended ("Act"), and 19 CFR 351.213(h)(1) direct the Department to issue the preliminary results in an administrative review of an antidumping duty order 245 days after the last day of the anniversary month of the order for which the administrative review was requested. The Department may, however, extend the deadline for completion of the preliminary results of an administrative review to 365 days if it determines it is not practicable to complete the review within the foregoing time period. *See* section 751(a)(3)(A) of the Act and 19 CFR 351.214(h)(2).

The Department finds that it is not practicable to complete the preliminary results within this time limit. The Department is extending the deadline because the Department twice had to select an additional respondent for individual examination, which has significantly delayed the receipt of the original questionnaire responses. Additionally, the Department requires further time to issue and receive responses to supplemental questionnaires as well as to receive and analyze surrogate country and surrogate value comments. We are therefore extending the time for the completion of the preliminary results of this review by 120 days to September 7, 2010. The final results continue to be due 120 days after the publication of the preliminary results.

This notice is published in accordance with section 751(a)(3)(A) of the Act and 19 CFR 351.213(h)(2).

Dated: March 22, 2010.

John M. Andersen,

Acting Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations.

[FR Doc. 2010–6797 Filed 3–25–10; 8:45 am]

BILLING CODE 3510–DS–S

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–908]

First Antidumping Duty Administrative Review of Sodium Hexametaphosphate from the People's Republic of China: Extension of Time Limit for the Preliminary Results

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

EFFECTIVE DATE: March 26, 2010.

FOR FURTHER INFORMATION CONTACT: Paul Walker, AD/CVD Operations, Office 9, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230; telephone: (202) 482–0413.

SUPPLEMENTARY INFORMATION:

Background

On April 27, 2009, the Department of Commerce ("Department") published in the **Federal Register** a notice of initiation of an administrative review of sodium hexametaphosphate from the People's Republic of China ("PRC"), covering the period September 14, 2007 February 28, 2009. *See Initiation of Antidumping and Countervailing Duty Administrative Reviews and Request for Revocation in Part*, 74 FR 19042 (April 27, 2009). From May 26, 2009 to October 28, 2009, the respondent in this review, Hubei Xingfa Chemical Group Co., Ltd. ("Hubei Xingfa"), submitted responses to the Department's antidumping duty questionnaires. From November 9–13, 2009, the Department conducted verification of Hubei Xingfa. On November 25, 2009, the Department extended the time period for issuing the preliminary results of review until January 30, 2010. *See First Antidumping Duty Administrative Review of Sodium Hexametaphosphate from the People's Republic of China: Extension of Time Limit for the Preliminary Results*, 74 FR 61656 (November 25, 2009). On February 5, 2010, the Department published a notice extending the time period for issuing the preliminary results by 41 days to March 12, 2010. *See First Antidumping Duty Administrative Review of Sodium Hexametaphosphate from the People's Republic of China: Extension of Time Limit for the Preliminary Results*, 75 FR 5946 (February 5, 2010). As explained in the memorandum from the Deputy Assistant Secretary for Import Administration, the Department has exercised its discretion to toll deadlines for the duration of the closure of the Federal Government from February 5, through February 12, 2010. *See* Memorandum to the Record regarding "Tolling of Administrative Deadlines As a Result of the Government Closure During the Recent Snowstorm," dated February 12, 2010. Thus, all deadlines in this segment of the proceeding have been extended by seven days. The revised deadline for the preliminary results of this review is now March 19, 2010.

Extension of Time Limit for the Preliminary Results

Section 751(a)(3)(A) of the Tariff Act of 1930, as amended ("the Act"), requires the Department to issue the preliminary results of an administrative review within 245 days after the last day of the anniversary month of an order for

which a review is requested. If it is not practicable to complete the review within the time period, section 751(a)(3)(A) of the Act allows the Department to extend this deadline to a maximum of 365 days.

The Department determines that completion of the preliminary results of this review within the statutory time period is not practicable, given the extraordinarily complicated nature of the proceeding. The Department requires additional time to analyze the information gathered at verification concerning Hubei Xingfa's corporate structure and ownership, sales practices, manufacturing methods, and to issue the verification report. Therefore, given the number and complexity of issues in this case, and in accordance with section 751(a)(3)(A) of the Act, we are extending the time period for issuing the preliminary results of review by 17 days until April 5, 2010. The final results continue to be due 120 days after the publication of the preliminary results.

This notice is published pursuant to sections 751(a)(3)(A) and 777(i)(1) of the Act and 19 CFR 351.213(h)(2).

Dated: March 19, 2010.

John M. Andersen,

Acting Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations.

[FR Doc. 2010–6809 Filed 3–25–10; 8:45 am]

BILLING CODE 3510–DS–S

DEPARTMENT OF COMMERCE

International Trade Administration

[A–583–843]

Polyethylene Retail Carrier Bags from Taiwan: Final Determination of Sales at Less Than Fair Value

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (the Department) has determined that imports of polyethylene retail carrier bags (PRCBs) from Taiwan are being, or are likely to be, sold in the United States at less than fair value (LFTV), as provided in section 735 of the Tariff Act of 1930, as amended (the Act). The estimated margins of sales at LTFV are listed in the "Continuation of Suspension of Liquidation" section of this notice.

EFFECTIVE DATE: March 26, 2010.

FOR FURTHER INFORMATION CONTACT: Dmitry Vladimirov or Minoo Hatten, 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) 482–0665 or (202) 482–1690, respectively.

SUPPLEMENTARY INFORMATION:

Case History

On October 27, 2009, the Department published in the **Federal Register** its preliminary determination in the antidumping duty investigation of PRCBs from Taiwan. *See Polyethylene Retail Carrier Bags From Taiwan: Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination*, 74 FR 55183 (October 27, 2009) (*Preliminary Determination*).

As explained in the memorandum from the Deputy Assistant Secretary for Import Administration, the Department has exercised its discretion to toll deadlines for the duration of the closure of the Federal Government from February 5, through February 12, 2010. Thus, all deadlines in this investigation have been extended by seven days. The revised deadline for the final determination in this investigation is now March 18, 2010. See Memorandum to the Record from Ronald Lorentzen, DAS for Import Administration, regarding "Tolling of Administrative Deadlines As a Result of the Government Closure During the Recent Snowstorm," dated February 12, 2010.

As provided in section 782(i) of the Act, we conducted sales and cost verifications of the questionnaire responses submitted by the sole participating respondent, TCI Plastic Co., Ltd. (TCI). We used standard verification procedures, including examination of relevant accounting and production records, as well as original source documents provided by TCI. See Memorandum to the File entitled "Verification of the U.S. Sales Response of Interplast Group in the Antidumping Investigation of Polyethylene Retail Carrier Bags from Taiwan," dated December 22, 2009, Memorandum to the File entitled "Verification of the Home–Market and Export–Price Sales Responses of TCI Plastic Co., Ltd., in the Antidumping Investigation of Polyethylene Retail Carrier Bags from Taiwan," dated December 23, 2009, and Memorandum to the File entitled "Verification of the Cost Response of Tis Dis International Co. Ltd. in the Antidumping Investigation of Polyethylene Retail Carrier Bags from Taiwan," dated January 11, 2010. All verification reports are on file and available in the Central Records Unit (CRU), Room 1117, of the main Department of Commerce building.

We received case briefs submitted by Hilex Poly Co., LLC, and Superbag Corporation (hereinafter, the petitioners) and TCI on January 21, 2010. The petitioners and TCI submitted rebuttal comments on January 26, 2010. Although a hearing was requested, the request was withdrawn and we did not hold a hearing.

Period of Investigation

The period of investigation is January 1, 2008, through December 31, 2008. This period corresponds to the four most recent fiscal quarters prior to the month of the filing of the petition, March 2009. See 19 CFR 351.204(b)(1).

Scope of the Investigation

The merchandise subject to this investigation is PRCBs, which also 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 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 this investigation 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 merchandise included within the scope of this investigation are currently classifiable under statistical category 3923.21.0085 of the Harmonized Tariff Schedule of the United States (HTSUS). This subheading may also cover products that are outside the scope of this investigation. Furthermore, although the HTSUS subheading is provided for convenience and customs purposes, the written description of the scope of this investigation is dispositive.

Adverse Facts Available

For the final determination, we continue to find that, by failing to provide information we requested, Ipsido Corporation (Ipsido), a respondent selected for individual examination in this investigation, did not act to the best of its ability. Thus, we continue to find that the use of adverse facts available is warranted for this company under sections 776(a)(2) and (b) of the Act. See *Preliminary Determination*, 74 FR at 55185–55186.

As we explained in the *Preliminary Determination*, the rate of 95.81 percent we selected as the adverse facts–available rate for Ipsido is the highest margin alleged in the petition (see the Petition for the Imposition of Antidumping and Countervailing Duties on Polyethylene Retail Carrier Bags from Indonesia, Taiwan, and the Socialist Republic of Vietnam, dated March 31, 2009). See also *Polyethylene Retail Carrier Bags From Indonesia, Taiwan, and the Socialist Republic of Vietnam: Initiation of Antidumping Duty Investigations*, 74 FR 19049, 19054 (April 27, 2009). Further, as discussed in the Preliminary Determination, we corroborated the adverse facts–available rate pursuant to section 776(c) of the Act. See *Preliminary Determination*, 74 FR at 55186.

Analysis of Comments Received

All issues raised in the case and rebuttal briefs by parties to this antidumping investigation are addressed in the "Issues and Decision Memorandum for the Antidumping Investigation of Polyethylene Retail Carrier Bags from Taiwan" (Decision Memorandum) from John M. Andersen, Acting Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations, to Ronald K. Lorentzen, Deputy Assistant Secretary for Import Administration, dated March 18, 2010, which is hereby adopted by this notice. A list of the issues which parties have raised and to which we have responded, all of which are in the Decision Memorandum, is attached to this notice as an appendix. Parties can find a complete discussion of all issues raised in this investigation and the corresponding recommendations in the Decision Memorandum which is on file in the CRU. In addition, a complete version of the Decision Memorandum can be accessed directly on the Web at http://ia.ita.doc.gov/frn/index.html. The paper copy and electronic version of the Decision Memorandum are identical in content.

Targeted Dumping

In the *Preliminary Determination*, we followed the methodology we adopted in *Certain Steel Nails from the United Arab Emirates: Notice of Final Determination of Sales at Not Less Than Fair Value*, 73 FR 33985 (June 16, 2008), and *Certain Steel Nails from the People's Republic of China: Final Determination of Sales at Less Than Fair Value and Partial Affirmative Determination of Critical Circumstances*, 73 FR 33977 (June 16, 2008) (collectively, *Nails*), used most recently in *Certain New Pneumatic Off–The-Road Tires from the People's Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value and Partial Affirmative Determination of Critical Circumstances*, 73 FR 40485 (July 15, 2008). See *Preliminary Determination*, 74 FR at 55187–55188. Based on the targeted–dumping test that we applied in the *Preliminary Determination*, we found a pattern of export prices and constructed export prices for comparable merchandise that differs significantly among certain customers, regions, and time periods. *Id.* As a result, following the methodology in *Nails*, we applied the average–to-transaction comparison methodology to TCI's targeted sales and the average–to-average comparison methodology to TCI's non–targeted sales; in calculating TCI's weighted–average margin, we combined the margin calculated for the targeted sales with the margin calculated for the non–targeted sales and did not offset any margins found among the targeted sales. See *Preliminary Determination*, 74 FR at 55188.

In the *Preliminary Determination* we announced that, given the now–withdrawn regulations that guided our practice in *Nails*, we would consider various options regarding the specific group of sales to which we apply the average–to-transaction methodology (the withdrawn targeted–dumping regulation would have limited such application to just the targeted sales). See *id.* We offered the following three options: 1) apply the average–to-transaction methodology just to sales found to be targeted as the withdrawn regulation directed and, consistent with our average–to-transaction practice, not offset any margins found on these transactions; 2) apply the average–to-transaction methodology to all sales to the customer, region, or time period found to be targeted (not just those specific sales found to be targeted) and, consistent with our average–to transaction practice, not offset any margins found on these transactions; and 3) apply the average–to-transaction methodology to all sales by TCI and, consistent with our average–to transaction practice, not offset any margins found on these transactions. See *id.*

As in the *Preliminary Determination*, we continue to find a pattern of export prices and constructed export prices for comparable merchandise that differs significantly among customers, regions, or by time period. See Memorandum to the File entitled "Final Determination of Sales at Less Than Fair Value in the Antidumping Duty Investigation of Polyethylene Retail Carrier Bags from Taiwan - Analysis Memorandum for TCI Plastic Co., Ltd.," dated March 18, 2010. We continue to find, pursuant to section 777A(d)(1)(B) of the Act, that application of the average–to-average comparison method does not account for such price differences and results in the masking of dumping that would be unmasked by the application of the average–to-transaction comparison method to all sales. Accordingly, for this final determination we have applied the average–to-transaction methodology to all U.S. sales that TCI reported. For a complete discussion, see the Decision Memorandum at Comment 1.

Changes Since the Preliminary Determination

Based on our analysis of the comments received and our findings at verifications, we have made certain changes to the margin calculation for TCI. For a discussion of these changes, see Memorandum to the File entitled "Final Determination of Sales at Less Than Fair Value in the Antidumping Duty Investigation of Polyethylene Retail Carrier Bags from Taiwan - Analysis Memorandum for TCI Plastic Co., Ltd.," dated March 18, 2010, and Memorandum to Neal Halper entitled "Cost of Production and Constructed Value Calculation Adjustments for the Final Determination TCI Plastic Co. Ltd. and Tis Dis International Co. Ltd.," dated March 18, 2010.

Cost of Production

As explained in the *Preliminary Determination* (74 FR at 55190), we conducted an investigation concerning sales at prices below the cost of production in the home market. We found that, for certain specific products, more than 20 percent of TCI's home–market sales were at prices less than the cost of production and, in addition, such sales did not provide for the recovery of costs within a reasonable period of time. Therefore, we disregarded these sales and used the

remaining sales as the basis for determining normal value in accordance with section 773(b)(1) of the Act. Based on this test, for this final determination we have disregarded below–cost sales by TCI.

Continuation of Suspension of Liquidation

Pursuant to section 735(c)(1)(B) of the Act, we will instruct U.S. Customs and Border Protection (CBP) to continue to suspend liquidation of all entries of PRCBs from Taiwan which were entered, or withdrawn from warehouse, for consumption on or after October 27, 2009,

The date of publication of the *Preliminary Determination*. We will instruct CBP to require a cash deposit or the posting of a bond equal to the weighted–average margins, as indicated below, as follows: (1) the rates for TCI and Ipsido will be the rates we have determined in this final determination; (2) if the exporter is not a firm identified in this investigation but the producer is, the rate will be the rate established for the producer of the subject merchandise; (3) the rate for all other producers or exporters will be 36.54 percent, as discussed in the "All–Others Rate" section, below. These suspension–of-liquidation instructions will remain in effect until further notice.

Manufacturer/Exporter	Weighted–Average Margin (Percent)
Ipsido Corporation	95.81
TCI Plastic Co., Ltd.	36.54

All–Others Rate

Section 735(c)(5)(A) of the Act provides that the estimated all–others rate shall be an amount equal to the weighted average of the estimated weighted–average dumping margins established for exporters and producers individually investigated excluding any zero or *de minimis* margins and any margins determined entirely under section 776 of the Act. TCI is the only respondent in this investigation for which the Department has calculated a company–specific rate. Therefore, for purposes of determining the all–others rate and pursuant to section 735(c)(5)(A) of the Act, we are using the weighted–average dumping margin calculated for TCI, 36.54 percent. *See, e.g., Notice of Final Determination of Sales at Less Than Fair Value: Stainless Steel Sheet and Strip in Coils From Italy*, 64 FR 30750, 30755 (June 8, 1999), and *Coated Free Sheet Paper from Indonesia: Notice of Preliminary Determination of Sales at Less Than Fair Value and Postponement of Final Determination*, 72 FR 30753, 30757 (June 4, 2007) (unchanged in *Notice of Final Determination of Sales at Less Than Fair Value: Coated Free Sheet Paper from Indonesia*, 72 FR 60636 (October 25, 2007)).

Disclosure

We will disclose the calculations performed within five days of the date of publication of this notice to parties in this proceeding in accordance with 19 CFR 351.224(b).

International Trade Commission Notification

In accordance with section 735(d) of the Act, we have notified the International Trade Commission (ITC) of our final determination. As our final determination is affirmative and in accordance with section 735(b)(2) of the Act, the ITC will determine, within 45 days, whether

The domestic industry in the United States is materially injured, or threatened with material injury, by reason of imports or sales (or the likelihood of sales) for importation of the subject merchandise. If the ITC determines that such injury does exist, the Department will issue

An antidumping duty order directing CBP to assess antidumping duties on all imports of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the effective date of the suspension of liquidation.

Notification Regarding APO

This notice also serves as a reminder to parties subject to administrative protective order (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305. Timely notification of the destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

This determination is issued and published pursuant to sections 735(d) and 777(i)(1) of the Act.

Dated: March 18, 2010.

Ronald K. Lorentzen,

Deputy Assistant Secretary for Import Administration.

Appendix -- Issues in Decision Memorandum

1. Targeted Dumping
2. Sales Outside the Ordinary Course of Trade
3. Home–Market Warranty Expenses
4. Direct Material Costs
5. Variable Overhead Costs for Outside Processing Services
6. Unreconciled Costs
7. Financial Expense
8. U.S. Indirect Selling Expenses
9. Miscellaneous Issues

[FR Doc. 2010–6807 Filed 3–25–10; 8:45 am]

BILLING CODE 3510–DS–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XV50

Western Pacific Fishery Management Council; Public Meetings

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

ACTION: Notice of public meetings.

SUMMARY: The Western Pacific Fishery Management Council (Council) will hold meetings of its Hawaii and American Samoa Advisory Panels (AP), Hawaii and American Samoa Plan Teams (PT), and Hawaii and American Samoa Regional Ecosystem Advisory Committees (REAC).

DATES: The Hawaii AP meeting will be held on April 12, 2010, Hawaii REAC meeting on April, 13, 2010, and Hawaii PT meeting on April 14 and 15, 2010. The American Samoa AP meeting will be held on April 19, 2010, American Samoa PT meeting on April 20, 2010, and American Samoa REAC meeting on April 21, 2010. For specific times and agendas, see **SUPPLEMENTARY INFORMATION**.

ADDRESSES: The Hawaii AP, PT and REAC meetings will be held at the Council Office Conference Room, 1164 Bishop Street, Suite 1400, Honolulu, HI. The American Samoa AP and PT meetings will be held at the American Samoa Department of Marine and Wildlife Resources (DMWR) Conference Room, Pago Pago, American Samoa. The American Samoa REAC meeting will be held at the Governor H. Rex Lee Auditorium (Fale Laumei), Department of Commerce Government of American Samoa, Pago Pago, American Samoa.

FOR FURTHER INFORMATION CONTACT: Kitty M. Simonds, Executive Director; telephone: (808) 522–8220.

SUPPLEMENTARY INFORMATION: Public comment periods will be provided throughout the agendas. The order in which agenda items are addressed may change. The meetings will run as late as necessary to complete scheduled business.

Schedule and Agenda for Hawaii AP Meeting

9:30 a.m. 5 p.m., Monday, April 12, 2010

The Hawaii AP will meet to hear reports on, discuss and consider developing recommendations on the following upcoming Council meeting actions:

A. Annual Catch Limits

B. Management Measures for Aquaculture in the Western Pacific

C. Hawaii Archipelago Essential Fish Habitat Review

D. Cooperative Research Projects and Priorities

Reports will be provided on meetings and workshops held related to Catch Shares/Limited Access Privilege Programs for Hawaii bottomfish and monitoring activities and projects including, Kona crab fishery assessment, NMFS biosampling program, and bottomfish regulations and compliance.

Schedule and Agenda for Hawaii REAC Meeting

9 a.m. 4 p.m., Tuesday, April 13, 2010

The Hawaii REAC will meet to hear reports on, discuss and consider developing recommendations on the following upcoming Council meeting actions:

A. Annual Catch Limits

B. Recommendations on Management Measures for Aquaculture in the Western Pacific

C. Recommendations on Hawaii Archipelago Essential Fish Habitat

D. Catch Shares/Limited Access Privilege Programs

In addition, the Hawaii REAC will hear reports on, discuss and consider developing recommendations on Marine Spatial Planning, Hawaii Sanctuary Management Plan and Review, Marine Recreational Planning and Registry, Navy Integrated Natural Resource Management Plan, ESA Incidental Take Permit for Sea Turtles and Monk Seals, and monitoring and research activities.

Schedule and Agenda for the Hawaii PT Meeting

9 a.m. 4 p.m., Wednesday and Thursday, April 14 and 15, 2010

The PT will review the status of 2009 PT recommendations. The PT will discuss and may make recommendations on the Hawaii Archipelago Annual Report Modules for bottomfish, coral reef, precious coral and crustacean fisheries. Reports will be provided on monitoring activities and projects including, Kona crab fishery assessment, precious coral research, NMFS biosampling program, and bottomfish regulations and compliance. The PT will review and make recommendations on the following upcoming Council actions:

A. Annual Catch Limits

B. Catch shares/Limited Access Privilege Programs

C. Management Measures for Aquaculture in the Western Pacific

D. Hawaii Archipelago Essential Fish Habitat Review

E. Recommendations on Cooperative Research Projects and Priorities

Schedule and Agenda for American Samoa AP Meeting

5 p.m. 9 p.m., Monday, April 19, 2010

The American Samoa AP will meet to hear reports on, discuss and consider developing recommendations on the following upcoming Council meeting actions:

A. Annual Catch Limits

B. Management Measures for Aquaculture in the Western Pacific

C. Rose Atoll Marine National Monument

D. Cooperative Research Projects and Priorities

Reports will be provided and the AP will discuss and consider developing recommendations on community issues, research, and monitoring, fisheries development and new boat ramps, biological-sampling for life history information, and a new monitoring tool at FishBox.org.

Schedule and Agenda for American Samoa PT Meeting

9 a.m. 4 p.m., Tuesday, April 20, 2010

The American Samoa PT will meet to hear reports on, discuss and consider developing recommendations on the following upcoming Council meeting actions:

A. Annual Catch Limits

B. Rose Atoll Marine National Monument

C. Offshore Aquaculture Plan

D. Catch Shares/Limited Access Privilege Program

E. Cooperative Research Priorities and Projects

In addition, The PT will review the status of 2009 PT recommendations and will discuss and may make recommendations on the American Samoa Archipelago Fishery Ecosystem Plan Annual Report Modules for bottomfish, coral reef, precious coral and crustacean fisheries. Reports will be provided on monitoring activities and projects being conducted in American Samoa.

Schedule and Agenda for American Samoa REAC Meeting

9 a.m. 4 p.m., Wednesday, April 21, 2010

The American Samoa REAC will meet to hear reports on, discuss and consider developing recommendations on the following upcoming Council meeting actions:

A. Annual Catch Limits

B. Rose Atoll Marine National Monument

C. Offshore Aquaculture Plan

D. Catch Shares/Limited Access Privilege Program

E. Cooperative Research Priorities and Projects

In addition, the American Samoa REAC will hear reports on, discuss and consider developing recommendations on fisheries disaster relief, marine spatial planning, the Fagatele Bay National Marine Sanctuary Management Plan Review, Fisheries Development and new boat ramps, sea turtle interaction mitigation in the American Samoa longline Fishery, DMWR coral reef ecosystem surveys, and DMWR catch monitoring program.

Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Kitty M. Simonds, (808)522–8220 (voice) or (808)522–8226 (fax), at least five days prior to the meeting date.

Authority: 1801 *et seq.*

Dated: March 23, 2010.

Tracey L. Thompson,

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

[FR Doc. 2010–6698 Filed 3–25–10; 8:45 am]

BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

Economic Development Administration

Notice of Petitions by Firms for Determination of Eligibility To Apply for Trade Adjustment Assistance

AGENCY: Economic Development Administration, Department of Commerce.

ACTION: Notice and opportunity for public comment.

Pursuant to Section 251 of the Trade Act of 1974 (19 U.S.C. 2341 *et seq.*), the Economic Development Administration (EDA) has received petitions for certification of eligibility to apply for Trade Adjustment Assistance from the

firms listed below. EDA has initiated separate investigations to determine whether increased imports into the United States of articles like or directly competitive with those produced by each firm contributed importantly to the total or partial separation of the firm's workers, or threat thereof, and to a decrease in sales or production of each petitioning firm.

LIST OF PETITIONS RECEIVED BY EDA FOR CERTIFICATION OF ELIGIBILITY TO APPLY FOR TRADE ADJUSTMENT 3/4/2010 THROUGH 3/22/2010

Firm	Address	Date accepted for filing	Products
Hollywood Bed & Spring Mfg. Co., Inc.	5959 Corvette Street, Commerce, CA 90040.	3/4/2010	Manufacturing of Bedding Support Products, Bed Frames, Bed Rails, Rollaway Beds, Daybed Hardware.
Charcoal Spring Corp. d/b/a Filter Pro.	811 Main Street, P.O. Box , East Lynne, MO 64743.	3/5/2010	Air, Liquid and compressor filters manufactured and reconditioned.
Fixture Hardware Manufacturing Corp.	4116 First Avenue, Brooklyn, NY 11232.	3/9/2010	Full line of steel display hardware including: Brackets, Standards, Slotted tubing, Pilaster strips, Recessed and Concealed standards (T-Standards), and perimeter hardware.
Jay Industries, Inc	150 E. Longview, Mansfield, OH 44903–4206.	3/9/2010	Seating frames and other plastic components and fabricated metal parts.
Openings d/b/a Total Door	6145 Delfield Drive, Waterford, MI 48342.	3/9/2010	Complete door systems tailored to special needs of various markets.
Trek, Inc	11601 Maple Ridge Road, Medina, NY 14103.	3/9/2010	Voltmeters, field meters, power supplies and high voltage amplifiers.
C&L Aluminum Foundry, Inc	3024 S. Main, Fort Worth, TX 76110.	3/10/2010	Custom aluminum casting for heavy industry.
Consumer Interstate Corporation.	2 Consumers Avenue, Norwich, CT 06360.	3/10/2010	Industrial and business supplies including: janitorial, safety, shipping and packaging, office furniture and supplies, printed forms, and food service.
Innovative Composite Engineering Inc.	P.O. Box 1218, White, WA 98672.	3/11/2010	ICE specializes in the engineering and fabrication of composite (carbon fiber and fiberglass) parts utilizing pre-impregnated carbon fiber materials.
Jarvis Cutting Tools, Inc	100 Jarvis Avenue, Rochester, NH 03868.	3/11/2010	Manufactures exotic metal cutting machine tools including explosives.
Ktech Engineering, Inc	389 N Industrial Rd., St. George, UT 84770.	3/11/2010	Parts of Engines and Motors, primarily used in the aerospace industry. Final assembly of components and testing of motor assembly and electronics.
Aero Metals, Inc	1201 E. Lincolnway, LaPorte, IN 46350.	3/15/2010	Investment cast components from ferrous and non-ferrous metals.
Bentonville International Group, Inc.	1401 South Walton Blvd., Bentonville, AR 72712.	3/15/2010	RFID Systems Integration Services.
Lifetime Products, Inc	Freeport Center Bldg, D–11, Clearfield, UT 84016.	3/15/2010	Folding tables and chairs, basketball hoops, outdoor sheds and utility trailers.
Marlin Steel Wire Products, LLC.	2640 Merchant Drive, Baltimore, MD 21230.	3/15/2010	Marlin Steel Wire manufactures stainless steel, wire, and metal baskets wire forms and hooks.
Tamarack Mills LLC, d/b/a Evergreen Forest d/b/a Clearwater Forest Industries.	Highway 12, P.O. Box 340, Kooskia, ID 83539.	3/15/2010	Coniferous lumber, both boards (1x4 through 1x12) and dimensional (2x4 through 2x12).
Bioscience, Inc	966 Postal Road, Ste 200, Allentown, PA 18109.	3/16/2010	Water testing kits and chemicals.
Power Technology, Inc	P.O. Box 19117, Little Rock, AR 72219–1117.	3/16/2010	Laser Diode products.
American Pride Fasteners, LLC	195 South Fehr Way, Bayshore, NY 11706.	3/19/2010	Manufacture of miniature fasteners and specialty parts of miniature fasteners.
Abbott Action, Inc	10 Campanelli Circle, Canton, MA 02021.	3/22/2010	Corrugated packaging, Point of purchase corrugated displays and foam packaging.
Helio Precision Products	601 North Skokie Highway, Lake Bluff, IL 60044.	3/22/2010	Close-tolerance, complex, heavy duty diesel engine and transmission components and assemblies.
Mandeville Signs, Inc	676 George Washington, Lincoln, RI 02865.	3/22/2010	Electrical signs primarily from aluminum and acrylic with internal illumination via neon, LED or fluorescent tubes.
Package Printing Company, Inc	33 Myron Street, West, MA 01089.	3/22/2010	PPCI manufactures printed packaging. They print primarily on 70 gauge (OPP) Polypropylene rolls, 48 gauge Polyester rolls and 1.5–2.5 ml. Polyethylene rolls.
RES Manufacturing Company	7801 N 73rd Street, Milwaukee, WI 53223.	3/22/2010	Custom stamped metal parts and components.
R.F. Hunter Company, Inc	113 Crosby Road, Suite 9, Dover, NH 03820.	3/22/2010	Filter equipment for edible oils. Sheet metal parts of stainless steel are formed and then nickel plated.
Salamander Designs	811 Blue Hills Ave., Bloomfield, CT 06002.	3/22/2010	Salamander Designs sells modular furniture systems specially engineered to support audio and video equipment.
Sturman Industries	1 Innovation Way, Woodland, Park CO 80863.	3/22/2010	The company manufactures high-tech components for engines and provides related engineering services.
Tastex Corporation	467–469 Roosevelt Avenue, Central Falls, RI 02863.	3/22/2010	Tastex manufacturers air-jet, textured yarn using man-made fibers, nylon, polyester, polypropylene, etc.

LIST OF PETITIONS RECEIVED BY EDA FOR CERTIFICATION OF ELIGIBILITY TO APPLY FOR TRADE ADJUSTMENT 3/4/2010 THROUGH 3/22/2010—Continued

Firm	Address	Date accepted for filing	Products
UEMC, Inc	4343 W. Commerce Street, San Antonio, TX 78237.	3/22/2010	Unisex apparel manufacture.

Any party having a substantial interest in these proceedings may request a public hearing on the matter. A written request for a hearing must be submitted to the Trade Adjustment Assistance for Firms Division, Room 7106, Economic Development Administration, U.S. Department of Commerce, Washington, DC 20230, no later than ten (10) calendar days following publication of this notice.

Please follow the procedures set forth in Section 315.9 of EDA's final rule (71 FR 56704) for procedures for requesting a public hearing. The Catalog of Federal Domestic Assistance official program number and title of the program under which these petitions are submitted is 11.313, Trade Adjustment Assistance.

Dated: March 22, 2010.

Bryan Borlik,

Program Director.

[FR Doc. 2010–6709 Filed 3–25–10; 8:45 am]

BILLING CODE 3510–24–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–920]

Lightweight Thermal Paper From the People's Republic of China: Rescission of the 2008–2009 Administrative Review

AGENCY: Import Administration, International Trade Administration, Department of Commerce.

EFFECTIVE DATE: March 26, 2010.

FOR FURTHER INFORMATION CONTACT: Frances Veith, 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) 482–4295.

SUPPLEMENTARY INFORMATION:

Background

On November 2, 2009, the Department of Commerce ("Department") published a notice of opportunity to request an administrative review of the antidumping duty order on lightweight thermal paper ("LWTP") from the People's Republic of China ("PRC"). *See Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation; Opportunity to Request Administrative Review*, 74 FR 56573 (November 2, 2009). The period of review ("POR") is November 20, 2008, through October 31, 2009. On November 30, 2009, in accordance with 19 CFR 351.213(b), the Department received a timely request from Appleton Papers, Inc. ("petitioner") to conduct an administrative review of Shanghai Hanhong Paper Co., Ltd. and Hanhong International Limited (collectively "Hanhong") and Guangdong Guanhao High–Tech Co., Ltd. ("Guanhao"). In this case, there were no other requests for an administrative review by any other party.

Pursuant to this request, the Department published a notice of the initiation of the administrative review of the antidumping duty order on LWTP from the PRC for the POR. *See Initiation of Antidumping and Countervailing Duty Administrative Reviews and Request for Revocation in Part*, 74 FR 68229 (December 23, 2009).

Rescission of Administrative 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. In this case, petitioner timely withdrew its request for a review, and no other interested party requested a review of Hanhong and Guanhao. Therefore, the Department is rescinding the administrative review of the antidumping duty order on LWTP from the PRC covering the period November 20, 2008, through October 31, 2009, in accordance with 19 CFR 351.213(d)(1).

Assessment

The Department will instruct U.S. Customs and Border Protection ("CBP") to assess antidumping duties on all appropriate entries. Antidumping duties shall be assessed at rates equal to the cash deposit of estimated antidumping duties required at the time of entry, or withdrawal from warehouse, for consumption, in accordance with 19 CFR 351.212(c)(1)(i). The Department intends to issue appropriate assessment instructions directly to CBP 15 days after the publication of this notice in the **Federal Register**.

Notification to Interested Parties

This notice serves as a final reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Pursuant to 19 CFR 351.402(f)(3), failure to comply with this requirement could result in the Secretary's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of doubled antidumping duties.

This notice also serves as a reminder to parties subject to administrative protective order ("APO") of their responsibility concerning the disposition of proprietary information disclosed under APO, in accordance with 19 CFR 351.305 and as explained in the APO itself. Timely written notification of the return/destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

This notice is in accordance with section 777(i)(1) of the Tariff Act of 1930, as amended, and 19 CFR 351.213(d)(4).

Dated: March 19, 2010.

John M. Andersen,

Acting Deputy Assistant Secretary for Antidumping and Countervailing Duty Operations.

[FR Doc. 2010–6798 Filed 3–25–10; 8:45 am]

BILLING CODE 3510–DS–S

DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

[Docket No.: 100114021–0023–01]

Voting Equipment Evaluations Phase III

AGENCY: National Institute of Standards and Technology, Commerce.

ACTION: Notice.

SUMMARY: NIST is soliciting interest in Phase III of the benchmark research for voting equipment used in an election in 2008 or later and/or certified (or submitted for certification) by the Election Assistance Commission. Manufacturers interested in participating in Phase III of this research will be asked to execute a Letter of Understanding. Interested parties are invited to contact NIST for information regarding participation, Letters of Understanding and shipping.

DATES: Manufacturers who wish to participate in the program must submit a request and an executed Letter of Understanding by 5 p.m. Eastern Standard Time on May 25, 2010.

ADDRESSES: Letters of Understanding may be obtained from and should be submitted to Benjamin Long, National Institute of Standards and Technology, Information Technology Laboratory Office, Building 222, Room B306, 100 Bureau Drive, Mail Stop 8970, Gaithersburg, MD 20899–8970. Letters of Understanding may be faxed to: Benjamin Long at (301) 975–6097.

FOR FURTHER INFORMATION CONTACT: For shipping and further information, you may telephone Benjamin Long at (301) 975–2816, or e-mail: *blong@nist.gov.*

SUPPLEMENTARY INFORMATION: In accordance with the provisions of the Help America Vote Act (Pub. L. 107–252), the National Institute of Standards and Technology (NIST) will be conducting Phase III research on voting equipment used in an election in 2008 or later and/or certified (or submitted for certification) by the Election Assistance Commission. NIST Phase I, NIST Phase II, and NIST Phase III research support Technical Guidelines Development Committee Resolution 05–05, Human Performance-Based Standards and Usability Testing. NIST Phase III research is designed to: (1) Develop advanced test protocols, primarily for usability and accessibility, (2) validate test protocols, and (3) support additional research and test protocol development for next generation voluntary voting system guidelines. NIST may also examine relevant instructions, documentation and error messages, without doing any direct usability studies thereon.

NIST Phase I provided research for determining initial benchmarks (*see: http://vote.nist.gov/meeting-08172007/Usability-Benchmarks-080907.doc*). NIST Phase II provided research to develop usability test protocols. NIST Phase III continues the research to develop and validate advanced test protocols. Interested manufacturers should contact NIST at the address given above. NIST will supply a Letter of Understanding, which the manufacturer must execute and send back to NIST. NIST will then provide the manufacturer with shipping instructions for the manufacturer's equipment. The equipment provided will be returned to the manufacturer after the NIST experiments, approximately two years from commencement of the experiments. Manufacturers should be aware that some of the testing could damage or destroy the equipment, although NIST expects only normal wear and tear. At the conclusion of the experiments, the equipment will be returned to the manufacturer in its post-testing condition. NIST, the Election Assistance Commission, and/or the Technical Guidelines Development Committee, will not be responsible for the condition of the equipment when returned to the manufacturer. As a condition for participating in this program, each manufacturer must agree in advance to hold harmless all of these parties for the condition of the equipment. Information acquired during the tests regarding potential usability problems will be reported to the respective manufacturer. Results for identifiable vendor equipment will not be released. Comparative information may be released in a blind manner. Performance standards, benchmarks and conformance test procedures will be made publicly available. NIST may transport equipment to locations off site from NIST's main campus as required for the purpose of conducting usability tests. NIST will ensure that all off site benchmark testing locations have the same or higher level of security and equipment protection procedures as the on site NIST labs located at the NIST address provided above. Participating manufacturers should include or provide a technical tutorial on the setup and deployment of the equipment. NIST will pay all shipping costs, and there is no cost to the manufacturer for the testing. No modification to the equipment is permitted during the testing process. Voting equipment in an election in 2008 or later and/or certified (or submitted for certification) by the Election Assistance Commission that will be accepted for the experiments may include direct record electronic systems, optical scan systems, accessible voting systems, tabulation and reporting systems, ballot-on-demand, or electronic poll book systems as well as software used for ballot design and creation.

Dated: March 23, 2010.

Marc G. Stanley,

Acting Deputy Director.

[FR Doc. 2010–6746 Filed 3–25–10; 8:45 am]

BILLING CODE 3510–13–P

COMMITTEE FOR PURCHASE FROM PEOPLE WHO ARE BLIND OR SEVERELY DISABLED

Procurement List; Proposed Additions

AGENCY: Committee for Purchase From People Who Are Blind or Severely Disabled.

ACTION: Proposed additions to the Procurement List.

SUMMARY: The Committee is proposing to add to the Procurement List products and a service to be furnished by nonprofit agencies employing persons who are blind or have other severe disabilities.

Comments Must Be Received on or Before: 4/26/2010.

ADDRESSES: Committee for Purchase From People Who Are Blind or Severely Disabled, Jefferson Plaza 2, Suite 10800, 1421 Jefferson Davis Highway, Arlington, Virginia 22202–3259.

FOR FURTHER INFORMATION OR TO SUBMIT COMMENTS CONTACT: Barry S. Lineback, Telephone: (703) 603–7740, Fax: (703) 603–0655, or e-mail *CMTEFedReg@AbilityOne.gov.*

SUPPLEMENTARY INFORMATION: This notice is published pursuant to 41 U.S.C 47(a)(2) and 41 CFR 51–2.3. Its purpose is to provide interested persons an opportunity to submit comments on the proposed actions.

Additions

If the Committee approves the proposed additions, the entities of the Federal Government identified in this notice will be required to procure the products and service listed below from nonprofit agencies employing persons who are blind or have other severe disabilities.

Regulatory Flexibility Act Certification

I certify that the following action will not have a significant impact on a

substantial number of small entities. The major factors considered for this certification were:

1. If approved, the action will not result in any additional reporting, recordkeeping or other compliance requirements for small entities other than the small organizations that will furnish the products and service to the Government.

2. If approved, the action will result in authorizing small entities to furnish the products and service to the Government.

3. There are no known regulatory alternatives which would accomplish the objectives of the Javits-Wagner-O'Day Act (41 U.S.C. 46–48c) in connection with the products and service proposed for addition to the Procurement List.

Comments on this certification are invited. Commenters should identify the statement(s) underlying the certification on which they are providing additional information.

End of Certification

The following products and service are proposed for addition to Procurement List for production by the nonprofit agencies listed:

Products

NSN: 1670–01–523–7246—LCADS Low Cost Container.
NPA: Winston-Salem Industries for the Blind, Winston-Salem, NC.
Contracting Activity: DEPT OF THE ARMY, XR W6BA ACA NATICK, NATICK, MA.
Coverage: C–List for the government requirements for the Department of the Army, Natick, MA.

Tape, Insulation, Electrical

NSN: 5970–00–240–0617.
NSN: 5970–00–685–9059.
NSN: 5970–01–560–5355.
NPA: Raleigh Lions Clinic for the Blind, Inc., Raleigh, NC.
Contracting Activity: DEFENSE LOGISTICS AGENCY, DES DSCR CONTRACTING SERVICES OFC, RICHMOND, VA.
Coverage: C–List for the government requirements for the Defense Supply Center Richmond, Richmond, VA.

Service

Service Type/Location: Package Reclamation Service, Defense Depot Warner Georgia (DDWG), Robins Air Force Base, Warner Robins, GA.
NPA: Georgia Industries for the Blind, Bainbridge, GA.
Contracting Activity: DEFENSE LOGISTICS AGENCY, DEFENSE DISTRIBUTION CENTER, NEW CUMBERLAND, PA.

Barry S. Lineback,

Director, Business Operations.

[FR Doc. 2010–6706 Filed 3–25–10; 8:45 am]

BILLING CODE 6353–01–P

COMMITTEE FOR PURCHASE FROM PEOPLE WHO ARE BLIND OR SEVERELY DISABLED

Procurement List Additions

AGENCY: Committee for Purchase From People Who Are Blind or Severely Disabled.

ACTION: Additions to the procurement list.

SUMMARY: This action adds to the Procurement List products and services to be furnished by nonprofit agencies employing persons who are blind or have other severe disabilities.

DATES: *Effective Date:* 4/26/2010.

ADDRESSES: Committee for Purchase From People Who Are Blind or Severely Disabled, Jefferson Plaza 2, Suite 10800, 1421 Jefferson Davis Highway, Arlington, Virginia, 22202–3259.

FOR FURTHER INFORMATION CONTACT: Barry S. Lineback, Telephone: (703) 603–7740, Fax: (703) 603–0655, or e-mail *CMTEFedReg@AbilityOne.gov.*

SUPPLEMENTARY INFORMATION:

Additions

On 12/11/2009 (74 FR 65758–65760), 1/22/2010 (75 FR 3714), and 1/29/2010 (75 FR 4783–4784), the Committee for Purchase From People Who Are Blind or Severely Disabled published notices of proposed additions to the Procurement List.

After consideration of the material presented to it concerning capability of qualified nonprofit agencies to provide the products and services and impact of the additions on the current or most recent contractors, the Committee has determined that the products and services listed below are suitable for procurement by the Federal Government under 41 U.S.C. 46–48c and 41 CFR 51–2.4.

Regulatory Flexibility Act Certification

I certify that the following action will not have a significant impact on a substantial number of small entities. The major factors considered for this certification were:

1. The action will not result in any additional reporting, recordkeeping or other compliance requirements for small entities other than the small organizations that will furnish the products and services to the Government.

2. The action will result in authorizing small entities to furnish the products and services to the Government.

3. There are no known regulatory alternatives which would accomplish the objectives of the Javits-Wagner-O'Day Act (41 U.S.C. 46–48c) in connection with the products and services proposed for addition to the Procurement List.

End of Certification

Accordingly, the following products and services are added to the Procurement List:

Products

NSN: 8105–00–NIB–1300—Grain Bag.
NPA: Mississippi Industries for the Blind, Jackson, MS.
Contracting Activity: Department of Agriculture, Animal And Plant Health Inspection Service, Minneapolis, MN.
Coverage: C–List for 100% of the requirement of the Department of Agriculture, Animal and Plant Health Inspection Service, Minneapolis, MN.

M.R. Laundry Products
NSN: MR 1103—Heavy Duty Laundry Bag.
NSN: MR 1104—Pop Up Mesh Hamper.
NSN: MR 1105—Utility Pop Up Basket.
NPA: Industries for the Blind, Inc., West Allis, WI.
Contracting Activity: Military Resale-Defense Commissary Agency, Fort Lee, VA.
Coverage: C–List for the requirements for Military Resale, Defense Commissary Agency, Fort Lee, VA.

Services

Service Type/Locations: Manufacturing and Development of Prototypes for Equipment and Uniform Items.
Alphapointe Association for the Blind, 7501 Prospect, Kansas City, MO.
Northeastern Association of the Blind at Albany 301 Washington Avenue, Albany, NY.
Association for the Blind and Visually Impaired-Goodwill 422 South Clinton Avenue, Rochester, NY.
Blind Industries and Services of Maryland 3345 Washington Blvd, Baltimore, MD.
Industries of the Blind, Inc. 920 West Lee Street, Greensboro, NC.
Winston-Salem Industries for the Blind 7730 North Point Drive, Winston-Salem, NC.
LC Industries 4500 Emperor Blvd, Durham, NC.
Lions Services, Inc. 4600 North Tryon Street, Charlotte, NC.
San Antonio Lighthouse for the Blind 2305 Roosevelt Avenue, San Antonio, TX.
The Lighthouse for the Blind, Inc. (Seattle Lighthouse) 2501 South Plum Street, Seattle, WA.
Arkansas Lighthouse for the Blind 6918 Murray Street, Little Rock, AR.

NPAs:
National Industries for the Blind, Alexandria, VA (Prime Contractor).
Alphapointe Association for the Blind, Kansas City, MO (Subcontractor).
Northeastern Association of the Blind at Albany, Inc., Albany, NY (Subcontractor).
Association for the Blind and Visually Impaired & Goodwill Industries of Greater Rochester, Rochester, NY (Subcontractor).

Blind Industries & Services of Maryland, Baltimore, MD (Subcontractor).
Industries of the Blind, Inc., Greensboro, NC (Subcontractor).
Winston-Salem Industries for the Blind, Winston-Salem, NC (Subcontractor).
L.C. Industries for the Blind, Inc., Durham, NC (Subcontractor).
Lions Services, Inc., Charlotte, NC (Subcontractor).
San Antonio Lighthouse for the Blind, San Antonio, TX (Subcontractor).
The Lighthouse for the Blind, Inc. (Seattle Lighthouse), Seattle, WA (Subcontractor).
The Arkansas Lighthouse for the Blind, Little Rock, AR (Subcontractor).
Contracting Activity: Department of Homeland Security, US Coast Guard, CG–9, Washington, DC.
Service Type/Location: Shredding & Destruction of Document & Recycling.
U.S. Army Corps of Engineers: Middle East District, 201 Prince Frederick Dr., Winchester, VA.
Records Holding Area (RHA), 205 Brooke Rd., Winchester VA.
Transatlantic Division, 255 Fort Collier Rd., Winchester VA.
NPA: Athelas Institute, Inc., Columbia, MD.
Contracting Activity: Dept of the Army, XU W31R USAEN TRANSATL PGN CTR, Winchester, VA.
Service Type/Location: Mess Attendant and Contingency Cook Services, Malmstrom Air Force Base, MT.
NPA: Skils'kin, Spokane, WA.
Contracting Activity: Dept of the Air Force, FA 4626 341 CONS LGC, Malmstrom Air Force Base, MT.

Barry S. Lineback,

Director, Business Operations.

[FR Doc. 2010–6707 Filed 3–25–10; 8:45 am]

BILLING CODE 6353–01–P

CONSUMER PRODUCT SAFETY COMMISSION

Sunshine Act Meetings

TIME AND DATE: Wednesday, April 7, 2010, 9 a.m.–12 Noon.

PLACE: Hearing Room 420, Bethesda Towers, 4330 East West Highway, Bethesda, Maryland.

STATUS: Commission Meeting—Open to the Public.

MATTER TO BE CONSIDERED:

1. Public Database—Notice of Proposed Rulemaking (NPR).

A live Webcast of the Meeting can be viewed at *http://www.cpsc.gov/webcast/index.html.*

For a recorded message containing the latest agenda information, call (301) 504–7948.

CONTACT PERSON FOR MORE INFORMATION: Todd A. Stevenson, Office of the Secretary, U.S. Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814 (301) 504–7923.

Dated: March 24, 2010.

Todd A. Stevenson,

Secretary.

[FR Doc. 2010–6933 Filed 3–24–10; 4:15 pm]

BILLING CODE 6355–01–P

CONSUMER PRODUCT SAFETY COMMISSION

Sunshine Act Meetings

TIME AND DATE: Wednesday, March 31, 2010; 2 p.m.–5 p.m.

PLACE: Hearing Room 420, Bethesda Towers, 4330 East West Highway, Bethesda, Maryland.

STATUS: Commission Meeting—Closed to the Public.

MATTER TO BE CONSIDERED:

Compliance Weekly Report—Commission Briefing

The staff will brief the Commission on the status of various compliance matters.

For a recorded message containing the latest agenda information, call (301) 504–7948.

CONTACT PERSON FOR MORE INFORMATION: Todd A. Stevenson, Office of the Secretary, U.S. Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814, (301) 504–7923.

Dated: March 24, 2010.

Todd A. Stevenson,

Secretary.

[FR Doc. 2010–6939 Filed 3–24–10; 4:15 pm]

BILLING CODE 6355–01–P

CONSUMER PRODUCT SAFETY COMMISSION

Sunshine Act Meetings

TIME AND DATE: Wednesday, April 7, 2010; 2 p.m.–5 p.m.

PLACE: Hearing Room 420, Bethesda Towers, 4330 East West Highway, Bethesda, Maryland.

STATUS: Commission Meeting—Closed to the Public.

MATTER TO BE CONSIDERED:

Compliance Weekly Report—Commission Briefing

The staff will brief the Commission on the status of various compliance matters.

For a recorded message containing the latest agenda information, call (301) 504–7948.

CONTACT PERSON FOR MORE INFORMATION: Todd A. Stevenson, Office of the Secretary, U.S. Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814, (301) 504–7923.

Dated: March 24, 2010.

Todd A. Stevenson,

Secretary.

[FR Doc. 2010–6934 Filed 3–24–10; 4:15 pm]

BILLING CODE 6355–01–P

CONSUMER PRODUCT SAFETY COMMISSION

Sunshine Act Meetings

TIME AND DATE: Thursday, April 8, 2010, 9 a.m.–12 Noon & 1 p.m.–3 p.m.

PLACE: Hearing Room 420, Bethesda Towers, 4330 East West Highway, Bethesda, Maryland.

STATUS: Commission Meeting—Open to the Public.

MATTERS TO BE CONSIDERED:

1. Toxicity of Metals in Consumer Products (9 a.m.–12 noon).
2. Testing and Conformance (15 Month Rule)—Notice of Proposed Rulemaking (NPR) (1 p.m.–3 p.m.).

A live Webcast of the meeting can be viewed at *http://www.cpsc.gov/webcast/index.html.*

For a recorded message containing the latest agenda information, call (301) 504–7948.

CONTACT PERSON FOR MORE INFORMATION: Todd A. Stevenson, Office of the Secretary, U.S. Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814, (301) 504–7923.

Dated: March 24, 2010.

Todd A. Stevenson,

Secretary.

[FR Doc. 2010–6937 Filed 3–24–10; 4:15 pm]

BILLING CODE 6355–01–P

DEPARTMENT OF DEFENSE

Office of the Secretary

[Docket ID: DOD–2010–OS–0032]

Proposed Collection; Comment Request

AGENCY: Defense Finance and Accounting Service, DoD.

ACTION: Notice.

SUMMARY: In compliance with section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995, the Defense Finance and Accounting Service announces the extension of a proposed public information collection and seeks public comment on the provisions

thereof. Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed 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 information collection on respondents, including through the use of automated collection techniques or other forms of information technology.

DATES: Consideration will be given to all comments received by May 25, 2010.

ADDRESSES: You may submit comments, identified by docket number and title, by any of the following methods:

Federal eRulemaking Portal: http://www.regulations.gov. Follow the instructions for submitting comments.

Mail: Federal Docket Management System Office, Room 3C843, 1160 Defense Pentagon, Washington, DC 20301–1160.

Instructions: All submissions received must include the agency name, docket number and title for this **Federal Register** document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing on the Internet at *http://www.regulations.gov* as they are received without change, including any personal identifiers or contact information.

FOR FURTHER INFORMATION CONTACT: To request more information on this proposed information collection or to obtain a copy of the proposal and associated collection instruments, please write to the Disbursing Management Policy Division, Defense Finance and Accounting Service Indianapolis, DFAS–NPD/IN, ATTN: Mr. Clayton Stokley, 8899 E. 56th Street, Indianapolis, IN 46249, or call Mr. Clayton Stokley at (317) 510–8882.

Title, Associated Form, and OMB Number: Personal Check Cashing Agreement, DD Form 2761; OMB Number 0730–0005.

Needs and Uses: The information collection requirement is necessary to meet the Department of Defense's (DoD) requirement for cashing personal checks overseas and on ship by DoD disbursing activities, as provided in 31 U.S.C. 3342. The DoD Financial Management Regulation, Volume 5, provides guidance to DoD disbursing officers in the performance of this information collection. This allows the DoD disbursing officer or authorized agent the authority to offset the pay without prior notification in cases where this form has been signed subject to conditions specified within the approved procedures.

Affected Public: Individuals or households.

Annual Burden Hours: 1,187 hours.

Number of Respondents: 4,748.

Responses per Respondent: 1.

Average Burden per Response: 15 minutes.

Frequency: On occasion.

SUPPLEMENTARY INFORMATION:

Summary of Information Collection

The Personal Check Cashing Agreement Form is designed exclusively to help the DoD disbursing offices expedite the collection process of dishonored checks. The front of the form will be completed and signed by the authorized individual requesting check cashing privileges. By signing the form, the individual is freely and voluntarily consenting to the immediate collection from their current pay, without prior notice, for the face value of any check cashed, plus any charges assessed against the government by a financial institution, in the event the check is dishonored. In the event the check is dishonored, the disbursing office will complete and certify the reverse side of the form and forward the form to the applicable payroll office for collection from the individual's current pay.

Dated: March 23, 2010.

Mitchell S. Bryman,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 2010–6722 Filed 3–25–10; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF DEFENSE

Office of the Secretary

Federal Advisory Committee; Defense Science Board; Closed Meeting

AGENCY: Department of Defense (DoD).

ACTION: Notice of advisory committee meeting.

SUMMARY: The Defense Science Board will meet in closed session on May 12 and 13, 2010, at the Pentagon, Arlington, VA. The mission of the Defense Science Board is to advise the Secretary of Defense and the Under Secretary of Defense for Acquisition, Technology & Logistics on scientific and technical matters as they affect the perceived needs of the Department of Defense.

FOR FURTHER INFORMATION CONTACT: Ms. Debra Rose, Executive Officer, Defense Science Board, 3140 Defense Pentagon, Room 3B888A, Washington, DC 20301–3140, via e-mail at *debra.rose@osd.mil,* or via phone at (703) 571–0084.

SUPPLEMENTARY INFORMATION:

Agenda

At this meeting, the Board will discuss interim finding and recommendations resulting from ongoing Task Force activities. The Board will also discuss plans for future consideration of scientific and technical aspects of specific strategies, tactics, and policies as they may affect the U.S. national defense posture and homeland security.

In accordance with section 10(d) of the Federal Advisory Committee Act, Public Law 92–463, as amended (5 U.S.C. App. 2) and 41 CFR 102–3.155, the Department of Defense has determined that these Defense Science Board Quarterly meeting will be closed to the public. Specifically, the Under Secretary of Defense (Acquisition, Technology and Logistics), with the coordination of the DoD Office of General Counsel, has determined in writing that all sessions of these meetings will be closed to the public because they will be concerned throughout with matters listed in 5 U.S.C. 552b(c)(1).

Written Statements

Interested persons may submit a written statement for consideration by the Defense Science Board. Individuals submitting a written statement must submit their statement to the Designated Federal Official (*see* **FOR FURTHER INFORMATION CONTACT**), at any point, however, if a written statement is not received at least 10 calendar days prior to the meeting, which is the subject of this notice, then it may not be provided to or considered by the Defense Science Board. The Designated Federal Official will review all timely submissions with the Defense Science Board Chairperson, and ensure they are provided to members of the Defense Science Board before the meeting that is the subject of this notice.

Dated: March 22, 2010.

Mitchell S. Bryman,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 2010–6690 Filed 3–25–10; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF DEFENSE

Office of the Secretary

[Docket ID: DOD–2010–OS–0031]

Privacy Act of 1974; Systems of Records

AGENCY: Defense Intelligence Agency, DoD.

ACTION: Notice to amend a system of records.

SUMMARY: The Defense Intelligence Agency proposes to amend a system of records notice of its inventory of record systems subject to the Privacy Act of 1974 (5 U.S.C. 552a), as amended.

DATES: This action will be effective without further notice on April 26, 2010 unless comments are received that would result in a contrary determination.

ADDRESSES: You may submit comments, identified by docket number and title, by any of the following methods:

- *Federal Rulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.
- *Mail:* Federal Docket Management System Office, 1160 Defense Pentagon, Washington, DC 20301–1160.

Instructions: All submissions received must include the agency name and docket number for this **Federal Register** document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing on the Internet at *http://www.regulations.gov* as they are received without change, including any personal identifiers or contact information.

FOR FURTHER INFORMATION CONTACT: Ms. Theresa S. Lowery at (202) 231–1193.

SUPPLEMENTARY INFORMATION: The Defense Intelligence Agency notices for systems of records subject to the Privacy Act of 1974 (5 U.S.C. 552a), as amended, have been published in the **Federal Register** and are available from the Records and Privacy Act Services (DAN–1A), 200 MacDill Blvd., Washington DC 20340–5100.

The specific changes to the record system being amended are set forth below followed by the notice, as amended, published in its entirety. The proposed amendment is not within the purview of subsection (r) of the Privacy Act of 1974, (5 U.S.C. 552a), as amended, which requires the submission of a new or altered system report.

Dated: March 22, 2010.

Mitchell S. Bryman,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

LDIA 06–0003

SYSTEM NAME:

Deployment Management Records (June 14, 2006; 71 FR 34318)

CHANGES:

* * * * *

CATEGORIES OF RECORDS IN THE SYSTEM:

Delete entry and replace with "Records include but are not limited to copies of security information, copies of medical files, documentation of fulfilled training requirements, organizational and administrative information. Records include a profile containing: Full name of the individual, Social Security Number (SSN), Deployment Identification Number, home, work, cell and pager numbers, home address, personal and work email address, emergency contact name, telephone number, home address, and e-mail address, contract number and contractor organization name, along with employer's contact name, address and telephone number, travel itineraries, deployment, copies of passport and/or visa and common access or identification card, travel authorization information, trip dates, deployment processing information including training completed certifications, medical and dental screenings, blood type, and other official deployment-related information."

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

Delete entry and replace with "5 U.S.C. 301, Departmental Regulations; 44 U.S.C. 3102, Establishment of program of management; DIA Instruction 1400.003, Civilian Workforce Deployments; and E.O. 9397 (SSN), as amended."

* * * * *

STORAGE:

Delete entry and replace with "Paper and electronic storage media."

* * * * *

RECORD SOURCE CATEGORIES:

Delete entry and replace with "Agency employees, other government agencies and their employees".

* * * * *

LDIA 06–0003

SYSTEM NAME:

Deployment Management Records

SYSTEM LOCATION:

Defense Intelligence Agency (DIA) Deployment Center, 3300 75th Ave., Landover, MD 20781–1501.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Military personnel, civilian employees, employees of other government agencies and contractors supporting ongoing contingency operations for DIA missions.

CATEGORIES OF RECORDS IN THE SYSTEM:

Records include but are not limited to copies of security information, copies of medical files, documentation of fulfilled training requirements, organizational and administrative information. Records include a profile containing: Full name of the individual, Social Security Number (SSN), Deployment Identification Number, home, work, cell and pager numbers, home address, personal and work email address, emergency contact name, telephone number, home address, and email address, contract number and contractor organization name, along with employer's contact name, address and telephone number, travel itineraries, deployment, copies of passport and/or visa and common access or identification card, travel authorization information, trip dates, deployment processing information including training completed certifications, medical and dental screenings, blood type, and other official deployment-related information.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

5 U.S.C. 301, Departmental Regulations; 44 U.S.C. 3102, Establishment of program of management; DIA Instruction 1400.003, Civilian Workforce Deployments; and E.O. 9397 (SSN), as amended.

PURPOSE(S):

To plan and manage support personnel who deploy in support of ongoing contingency operations for DIA missions.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

In addition to those disclosures generally permitted under 5 U.S.C. 552a(b) of the Privacy Act of 1974, these records may specifically be disclosed outside the DoD as a routine use pursuant to 5 U.S.C. 552a(b)(3) as follows:

The 'Blanket Routine Uses' set forth at the beginning of the DIA's compilation of systems of records notices apply to this system.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Paper and electronic storage media.

RETRIEVABILITY:

Name, Social Security Number (SSN) and Deployment Identification Number (DIN).

SAFEGUARDS:

Records are stored in office buildings protected by guards, controlled screenings, use of visitor registers, electronic access, and/or locks. Access to records is limited to individuals who are properly screened and cleared on a need-to-know basis in the performance of their duties. Passwords and User IDs are used to control access to the system data, and procedures are in place to deter and detect browsing and unauthorized access. Physical and electronic access are limited to persons responsible for servicing and authorized to use the system.

RETENTION AND DISPOSAL:

Disposition and retention pending National Archives and Records Administration (NARA) approval. Records will be treated as permanent until disposition and retention policies are approved by NARA.

SYSTEM MANAGER(S) AND ADDRESS:

Defense Intelligence Agency (DIA) Deployment Center, 3300 75th Ave., Landover, MD 20781–1501.

NOTIFICATION PROCEDURE:

Individuals seeking to determine whether information about themselves is contained in this system of records should address written inquiries to the DIA Freedom of Information Office (DAN–1A), Defense Intelligence Agency, 200 MacDill Blvd., Washington, DC 20340–5100.

Request should contain the individual's full name, current address, telephone number, and Social Security Number (SSN).

RECORD ACCESS PROCEDURES:

Individuals seeking access to information about themselves contained in this system of records, should address written inquiries to the DIA Freedom of Information Office (DAN–1A), 200 MacDill Blvd., Washington, DC 20340–5100.

Request should contain the individual's full name, current address, telephone number, and Social Security Number (SSN).

CONTESTING RECORD PROCEDURES:

DIA's rules for accessing records, for contesting contents and appealing initial agency determinations are published in DIA Instruction 5400.001, "Defense Intelligence Agency Privacy Program"; or may be obtained from the system manager.

RECORD SOURCE CATEGORIES:

Agency employees, other government agencies and their employees.

EXEMPTIONS CLAIMED FOR THE SYSTEM:

None.

[FR Doc. 2010–6689 Filed 3–25–10; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF DEFENSE

Department of the Air Force

[Docket ID: USAF–2010–0008]

Privacy Act of 1974; System of Records

AGENCY: Department of the Air Force, DoD.

ACTION: Notice to amend a system of records.

SUMMARY: The Department of the Air Force is proposing to amend a system of records notice in its existing inventory of records systems subject to the Privacy Act of 1974, (5 U.S.C. 552a), as amended.

DATES: The changes will be effective on April 26, 2010, unless comments are received that would result in a contrary determination.

ADDRESSES: You may submit comments, identified by docket number and title, by any of the following methods:

- *Federal Rulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.
- *Mail:* Federal Docket Management System Office, 1160 Defense Pentagon, Washington, DC 20301–1160.

Instructions: All submissions received must include the agency name and docket number for this **Federal Register** document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing on the Internet at *http://www.regulations.gov* as they are received without change, including any personal identifiers or contact information.

FOR FURTHER INFORMATION CONTACT: Mr. Ben Swilley at (703) 696–6172.

SUPPLEMENTARY INFORMATION: The Department of the Air Force systems of records notices subject to the Privacy Act of 1974, (5 U.S.C. 552a), as amended, have been published in the **Federal Register** and are available from the Air Force Privacy Act Officer, Office of Warfighting Integration and Chief Information Officer, SAF/XCPPF, 1800 Air Force Pentagon, Washington, DC 20330–1800.

The specific changes to the records systems being amended are set forth below followed by the notices, as amended, published in their entirety. The proposed amendments are not within the purview of subsection (r) of the Privacy Act of 1974, (5 U.S.C. 552a), as amended, which requires the submission of a new or altered system report.

Dated: March 22, 2010.

Mitchell S. Bryman,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

F036 AFSPC A

SYSTEM NAME:

Space Command Operations Training (June 11, 1997; 62 FR 31793).

CHANGES:

* * * * *

CATEGORIES OF RECORDS IN THE SYSTEM:

Delete entry and replace with "Records related to qualifications, training/evaluation accomplishment, staff/crew alphanumeric identifier, type training/evaluation, scores, proficiency rating, name, grade, Social Security Number (SSN), unit assigned, and dates of training or evaluation."

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

Delete entry and replace with "10 U.S.C. 8013, Secretary of the Air Force; Air Force Space Command Instruction 36–2202; Operations Training and Standardization and Evaluation Programs and E.O. 9397 (SSN), as amended."

* * * * *

STORAGE:

Delete entry and replace with "Paper file folders and electronic storage media."

RETRIEVABILITY:

Delete entry and replace with "Retrieved by name and/or Social Security Number (SSN)."

* * * * *

SYSTEM MANAGER(S) AND ADDRESS:

Delete entry and replace with "Director of Operations and Operations Training, Testing Exercise and Evaluation Division Chief at Headquarters Air Force Space Command. HQ AFSPC/A3, 150 Vandenberg Street, Suite 1500, Peterson AFB, CO 80914–4184.

Operations Officers (Second in Command) at Air Force Space Command units that perform the space control, space lift, missile warning (space or ground-based), space surveillance mission. Official mailing addresses are published as an appendix to the Air Force's compilation of record systems notices."

* * * * *

CONTESTING RECORD PROCEDURES:

Delete entry and replace with "The Air Force rules for accessing records, and for contesting contents and appealing initial agency determinations are published in Air Force Instruction 33–332; 32 CFR part 806b, Privacy Act Program; or may be obtained from the system manager."

* * * * *

F036 AFSPC A

SYSTEM NAME:

Space Command Operations Training

SYSTEM LOCATION:

Operations flights at all units within Air Force Space Command and training flights at all operations support squadrons within 20th Air Force. Official mailing addresses are published as an appendix to the Air Force's compilation of record systems notices.

CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Air Force Space Command military personnel currently assigned to operational duties with space, space lift, warning and surveillance systems equipment.

CATEGORIES OF RECORDS IN THE SYSTEM:

Records related to qualifications, training/evaluation accomplishment, staff/crew alphanumeric identifier, type training/evaluation, scores, proficiency rating, name, grade, Social Security Number (SSN), unit assigned, and dates of training or evaluation.

AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

10 U.S.C. 8013, Secretary of the Air Force; Air Force Space Command Instruction 36–2202; Operations Training and Standardization and Evaluation Programs and E.O. 9397 (SSN), as amended.

PURPOSE(S):

To develop a record source of operations personnel qualifications, capabilities and historical data for analysis by unit and operations support squadrons to determine individual overall job qualifications. The files will provide a source of data to help ensure weapon system currency and adequacy of future training requirements.

ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

In addition to those disclosures generally permitted under 5 U.S.C. 552a(b) of the Privacy Act of 1974, these records may specifically be disclosed outside the DoD as a routine use pursuant to 5 U.S.C. 552a(b)(3) as follows:

The 'DoD Blanket Routine Uses' published at the beginning of the Air Force's compilation of systems of records notices apply to this system.

POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

STORAGE:

Paper file folders and electronic storage media.

RETRIEVABILITY:

Retrieved by name and/or Social Security Number (SSN).

SAFEGUARDS:

Records are accessed by individuals responsible for servicing the record system in performance of their official duties and by authorized personnel who are properly screened and cleared for need-to-know. Records are stored in locked rooms and cabinets. Those in computer storage devices are protected by computer system software.

RETENTION AND DISPOSAL:

Manual files are forwarded to gaining unit upon Permanent Change of Station to another Space Command unit. If individual then separates or transfers to another USAF major command, the file is returned to the individual. Computer records are deleted from the data base upon individual's departure from unit.

SYSTEM MANAGER(S) AND ADDRESS:

Director of Operations and Operations Training, Testing Exercise and Evaluation Division Chief at Headquarters Air Force Space Command. HQ AFSPC/A3, 150 Vandenberg Street, Suite 1500, Peterson AFB, CO 80914–4184.

Operations Officers (Second in Command) at Air Force Space Command units that perform the space control, space lift, missile warning (space or ground-based), space surveillance mission. Official mailing addresses are published as an appendix to the Air Force's compilation of record systems notices.

NOTIFICATION PROCEDURE:

Individuals seeking to determine whether this system of records contains information on themselves should address written inquiries to the Director of Operations and Operations Training, Testing Standardization and Evaluation, and Configuration Control Division at Headquarters Air Force Space Command. HQ AFSPC/A3, 150 Vandenberg Street, Suite 1500, Peterson AFB, CO 80914–4184.

Operations Officers (Second in Command) at Air Force Space Command units that perform the space control, space lift, missile warning (space or ground-based), space surveillance mission. Official mailing addresses are published as an appendix to the Air Force's compilation of record systems notices.

Requests should include full name, Social Security Number (SSN), grade and approximate dates individual was assigned to Air Force Space Command to perform the space control, space lift, missile warning (space or ground-based) or space surveillance mission (after 1 Sep 1983).

RECORD ACCESS PROCEDURES:

Individuals seeking access to information about themselves contained in this system should address written requests to the Director of Operations and Operations Training, Testing Standardization and Evaluation, and Configuration Control Division at Headquarters Air Force Space Command. HQ AFSPC/A3, 150 Vandenberg Street, Suite 1500, Peterson AFB, CO 80914–4184.

Operations Officers (Second in Command) at Air Force Space Command units that perform the space control, space lift, missile warning (space or ground-based), space surveillance mission. Official mailing addresses are published as an appendix to the Air Force's compilation of record systems notices.

Requests should include full name, Social Security Number (SSN), grade and approximate dates individual was assigned to Air Force Space Command to perform the space control, space lift, missile warning (space or ground-based) or space surveillance mission (after 1 Sep 1983).

CONTESTING RECORD PROCEDURES:

The Air Force rules for accessing records, and for contesting contents and appealing initial agency determinations are published in Air Force Instruction 33–332; 32 CFR part 806b; Privacy Act Program; or may be obtained from the system manager.

RECORD SOURCE CATEGORIES:

Information is obtained from the individual, instructors, or the standardization evaluators.

EXEMPTIONS CLAIMED FOR THE SYSTEM:

None.

[FR Doc. 2010–6688 Filed 3–25–10; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF EDUCATION

Notice of Proposed Information Collection Requests

AGENCY: Department of Education.

SUMMARY: The Acting Director, Information Collection Clearance Division, 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 May 25, 2010.

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 Acting Director, Information Collection Clearance Division, 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: March 22, 2010.

James Hyler,

Acting Director, Information Collection Clearance Division, Regulatory Information Management Services, Office of Management.

Office of Elementary and Secondary Education

Type of Review: New.

Title: Striving Readers Comprehensive Literacy State Formula Grant Application.

Frequency: Annually.

Affected Public: State, Local or Tribal Gov't.

Reporting and Recordkeeping Hour Burden:

Responses: 52

Burden Hours: 5,200

Abstract: The Striving Readers Comprehensive Literacy program is authorized as part of the FY 2010 Consolidated Appropriations Act (Pub. L. No. 111–117) under the Title I demonstration authority (Part E, Section 1502 of the Elementary and Secondary Education Act (ESEA). The FY 2010 Appropriations Act provides $250 million under Section 1502 of the ESEA for a comprehensive literacy development and education program to advance literacy skills for students from birth through grade 12. The Act reserves $10 million for formula grants to assist States in creating or maintaining a State Literacy Team with expertise in literacy development and education for children from birth through grade 12 and to assist States in developing a comprehensive literacy plan. This request includes information collection activities covered under the Paperwork Reduction Act (PRA). The activities consist of: (1) A new application for an SEA to submit to the Department to apply for FY 2010 funds under the 2010 Appropriations Act.

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 4262. 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. 2010–6750 Filed 3–25–10; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

Office of Special Education and Rehabilitative Services—Special Demonstration Programs—Model Demonstration Projects To Improve Outcomes for Individuals Receiving Social Security Disability Insurance (SSDI) Served by State Vocational Rehabilitation (VR) Agencies

AGENCY: Office of Special Education and Rehabilitative Services, Department of Education.

ACTION: Notice of proposed priority.

Catalog of Federal Domestic Assistance (CFDA) Number: 84.235L.

SUMMARY: The Assistant Secretary for Special Education and Rehabilitative Services proposes a priority under the Special Demonstration Programs to fund a project to identify, develop, and implement model demonstration projects to improve outcomes for individuals receiving Social Security Disability Insurance (SSDI) served by State Vocational Rehabilitation (VR) agencies. The Assistant Secretary may use this priority for competitions in fiscal year (FY) 2010 and later years. We take this action to improve employment outcomes for SSDI beneficiaries receiving services from State VR agencies.

DATES: We must receive your comments on or before April 26, 2010.

ADDRESSES: Address all comments about this notice to Thomas Finch, U.S. Department of Education, 400 Maryland Avenue, SW., room 5147, Potomac Center Plaza (PCP), Washington, DC 20202–2800.

If you prefer to send your comments by e-mail, use the following address: *tom.finch@ed.gov.* You must include the term "SSDI Demonstration" in the subject line of your electronic message.

FOR FURTHER INFORMATION CONTACT: Thomas Finch. Telephone: (202) 245–7343 or by e-mail: *tom.finch@ed.gov.*

If you use a telecommunications device for the deaf (TDD), call the Federal Relay Service (FRS), toll free, at 1–800–877–8339.

SUPPLEMENTARY INFORMATION:

Invitation To Comment: We invite you to submit comments regarding this notice.

We invite you to assist us in complying with the specific requirements of Executive Order 12866 and its overall requirement of reducing regulatory burden that might result from this proposed priority. Please let us know of any further ways we could reduce potential costs or increase potential benefits while preserving the effective and efficient administration of the program.

During and after the comment period, you may inspect all public comments about this notice in room 5052, Potomac Center Plaza (PCP), 550 12th Street, SW., Washington DC, between the hours of 8:30 a.m. and 4:00 p.m., Washington, DC time, Monday through Friday of each week except Federal holidays.

Assistance to Individuals With Disabilities in Reviewing the Rulemaking Record: On request we will provide an appropriate accommodation or auxiliary aid to an individual with a disability who needs assistance to review the comments or other documents in the public rulemaking record for this notice. If you want to schedule an appointment for this type of accommodation or auxiliary aid, please contact the person listed under **FOR FURTHER INFORMATION CONTACT**.

Purpose of Program: The purpose of this program is to expand and improve the provision of rehabilitation and other services authorized under the Rehabilitation Act of 1973, as amended (the Rehabilitation Act), or to support activities that increase the provision, extent, availability, scope, and quality of rehabilitation services provided under the Rehabilitation Act.

Program Authority: 29 U.S.C. 773(b).

Applicable Program Regulations: 34 CFR part 373.

Proposed Priority

This notice contains one proposed priority.

Model Demonstration Projects To Improve Outcomes for Individuals Receiving Social Security Disability Insurance (SSDI) Served by State Vocational Rehabilitation (VR) Agencies

Background

The Rehabilitation Act of 1973, as amended (the Rehabilitation Act), authorizes the establishment of VR agencies in each State to administer the State's Vocational Rehabilitation Services program. These State VR agencies provide VR services to eligible individuals with disabilities to assist them to prepare for, obtain, or retain employment, preferably competitive employment. Under the VR program, competitive employment means employment in the competitive labor market that is performed in an integrated setting and for which the individual is paid at or above the minimum wage but not less than the customary wage and level of benefits paid by the employer for the same work to individuals who are not disabled (*see generally* 34 CFR 361.5(b)(11)). In this context, an integrated setting means employment in jobs that are typically found in the community and in which individuals with disabilities have the same opportunity to interact with others in the course of their work that is available to any other person employed in a comparable position (*see generally* 34 CFR 361.5(b)(33)(ii)).

The Social Security Administration (SSA) provides income support to more than 10 million working age people with disabilities through its Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) programs. Under the SSDI program, SSA provides benefits to eligible individuals with a work history who have paid Social Security taxes on their earnings and who cannot work because they have a medical condition that is expected to last at least one year or result in death. The SSI program is an income supplement program that provides cash assistance for basic needs, such as food, clothing, and shelter, to individuals who are 65 years of age or older or who are disabled and who have little or no income. Individuals with disabilities may receive assistance under both the SSDI and SSI programs. The Federal government's cost of providing these benefits was almost $101 billion in 2005 and the number of beneficiaries and cost of these programs are expected to increase (GAO–07–332, March 30, 2007).

State VR agencies serve a significant number of SSA beneficiaries. In FY 2008, approximately 28 percent of all individuals whose service records were closed were SSA beneficiaries at the time that they applied for VR services, over half of whom were SSDI beneficiaries. Similarly, SSA beneficiaries represented nearly a quarter of those individuals exiting the State VR program with an employment outcome in FY 2008, over half of whom were SSDI beneficiaries (RSA–911 data). Accordingly, SSA has a significant and ongoing interest in State VR agencies' success in helping individuals with disabilities secure employment.

The Rehabilitation Act Amendments of 1992 increased the role of VR agencies in assisting SSA beneficiaries by requiring that individuals with disabilities who receive SSDI or SSI benefits be considered individuals with significant disabilities and be presumed to be eligible for VR services under the State VR Services program (*see* section 102(a)(3) of the Rehabilitation Act). State VR agencies' role has increased even more since the passage of the Ticket to Work and Work Incentives Improvement Act of 1998 (42 U.S.C. 1320b–19). Under the Ticket to Work program, most SSDI beneficiaries and SSI recipients between the ages of 18 and 64 are offered a "ticket" which they may use to obtain VR services, employment services, and other support services from an SSA employment network services provider. State VR agencies can participate in the Ticket to Work program as an employment network services provider or through a cost reimbursement program. As of March 1, 2010, about 229,224 ticket-holders are working with a State VR agency under the traditional cost reimbursement arrangement. In addition, about 34 percent of the 40,328 tickets that have been assigned have been assigned to State VR agencies as an employment network and about 66 percent have been assigned to other employment networks. The Web site *http://www.socialsecurity.gov/work/tickettracker.html* provides more details on the coordination effort between State VR agencies and the Ticket to Work program. There are also new opportunities for State VR agencies to partner with other VR providers under options that became available under the new Ticket to Work regulations that became effective July 21, 2008 (20 CFR part 411).

Notwithstanding collaboration between SSA and the VR program, recent studies have criticized the return to work efforts for SSA beneficiaries. A GAO study found that while individuals increased their earnings after receiving VR services, only a small proportion of that group of individuals earned a sufficient amount that would enable them to leave the SSA beneficiary rolls (Vocational Rehabilitation: Earnings Increased for Many SSA Beneficiaries after Completing VR Services, but Few Earned Enough to Leave SSA's Disability Rolls, GAO–07–332 March 30, 2007). The most recent GAO study (Vocational Rehabilitation: Improved Information and Practices May Enhance State Agency Earnings Outcomes for SSA Beneficiaries, GAO–07–521, May 23, 2007) reported that State agency outcomes for SSA beneficiaries completing VR programs varied widely

across different outcome measures. For example, according to SSA earning records, there is wide variation among State VR agencies in the amount of money that individuals with disabilities who achieved employment outcomes earned during the first year after closure of the VR service record.

This most recent study also found that some of the variance in outcomes could be explained by factors such as State economic conditions and the characteristics of the individuals receiving agency services. However, GAO did find that a few State VR agency practices appeared to yield positive earnings results and made the following recommendation:

> To improve the effectiveness of Education's program evaluation efforts and ultimately the management of vocational rehabilitation programs, the Secretary of Education should further promote agency practices that show promise for helping more SSA disability beneficiaries participate in the work force. Such a model should seek to increase: (1) The percentage of VR staff who meet State standards and certifications established under the Comprehensive System of Personnel Development (CSPD), (2) partnership or involvement with area business communities, and (3) collaboration with other agencies that provide complementary services (Vocational Rehabilitation: Improved Information and Practices May Enhance State Agency Earnings Outcomes for SSA Beneficiaries, GAO–07–521, May 23, 2007).

We propose to address GAO's recommendation that the Department promote promising practices by examining practices in State VR agencies and other factors affecting the employment outcomes of SSDI beneficiaries. The focus of this proposed priority is limited to individuals with disabilities receiving SSDI benefits at the time of application to the VR program, including those individuals receiving both SSDI and SSI, because differences in program eligibility and other characteristics of the SSDI and SSI programs and their recipients (work history, amount of disability payment, work-related incentives/disincentives), would make it difficult to analyze, interpret, and generalize the results.

There are a number of practices and other factors that may affect the outcomes of SSDI beneficiaries that need to be examined at the State or local level, for example, looking at the effect of partnering with business or collaborating with other agencies that provide complementary services, as suggested by GAO. Likewise, State VR agencies commit varying levels of resources towards rehabilitation of SSA beneficiaries, and these individual State decisions could also explain differences in State VR agency performance. Finally, the existence within States of different levels of extended services and supports available from other agencies to assist individuals with disabilities to maintain employment following the completion of the VR program and case closure may also have a direct impact on job retention and earnings levels.

One way to study these individual State differences is to identify State VR agencies that are particularly successful in achieving employment outcomes for SSDI beneficiaries at comparatively higher wages and hours worked and to conduct in-depth case studies of those agencies to identify practices that are associated with more and better employment outcomes and can be replicated by other State VR agencies.

One source of data that may be used for this analysis is the RSA–911. The RSA–911 is the primary individual service record level database on which State VR agencies report information about individual characteristics of, services provided to, and the employment outcomes obtained by individuals served by the VR program. Examination of RSA–911 information for FY 2008 shows that, as GAO reported, State VR agencies differ considerably in both the number of SSDI beneficiaries served and in the number and quality of the employment outcomes obtained by SSDI beneficiaries. There are differences in relative success rates (called employment outcome rates or rehabilitation rates in VR nomenclature) and relative differences in emphasis on full- or part-time work (as indicated by average hours worked per week). There are also differences in gross weekly wages and in the percentage of individuals who earn more than the substantial gainful activity (SGA) level at closure (RSA analysis of RSA–911 data, FY 2008).

A preliminary review of four performance measures (employment outcome rate, wages at case closure, hours worked, and percentage of individuals earning an amount greater than SGA at closure) in the RSA–911 data indicates that there are 10 State VR agencies that score in the top 20 percent of all State VR agencies for at least three out of the four performance measures. Although a more in-depth analysis of recent RSA–911 data and other information may provide somewhat different results, RSA has concluded from this preliminary review that there is a pool of State VR agencies that are able to achieve more employment outcomes involving full-time work and higher wages for SSDI beneficiaries from which selections for a case study review could be made.

This proposed priority is envisioned as a cooperative agreement with significant interaction and collaboration between RSA and the grantee. There are several distinct activities involved in this research activity. These include: further analysis of existing RSA data and other relevant data to identify high-performing State VR agencies; investigation of practices within these agencies using rigorous case study methodology; analysis of the case study findings; and design, implementation, and evaluation of a demonstration project based on the findings from the case studies.

Some of the preliminary work for this data analysis has been completed, as discussed previously in this notice. Before a grant is made under this priority, RSA staff will conduct a more thorough analysis of State VR agency performance related to serving SSDI beneficiaries to determine whether there are State VR agencies that consistently appear to perform better than others across multiple measures. In conducting this analysis, RSA will likely use other databases in conjunction with the RSA–911. The analysis will refine the criteria for measuring high performance and will be the basis for identifying States that meet the identified criteria. RSA will share the results of this analysis with the grantee during the discussion of the selection of the high-performing State VR agencies to be examined further through the case studies.[1] It is recommended that applicants assume that there will be three case studies on the premise that further analysis will reduce the pool of State VR agencies that show consistent positive outcomes for SSDI beneficiaries and that only some of those State VR agencies will agree to participate in the study.

The purpose of the case studies of State VR agencies that demonstrate sustained success with SSDI beneficiaries is to determine possible factors contributing to that success. High-performing agencies will be asked

[1] State VR agencies that serve individuals who are blind or visually impaired will be excluded from this study for two reasons: individuals who are blind or visually impaired have significantly different benefits under the SSDI program, the most important of which is the allowance of a higher level of earnings before meeting the SGA requirement; and most of these agencies serve relatively few individuals, making analysis more difficult. Likewise, VR programs in the Commonwealths of Puerto Rico and the Northern Marianas and the territories of Guam, American Samoa, and the Virgin Islands are excluded from this study for reasons of small numbers served, cost considerations, and significant differences in availability and organization of other resources for individuals with disabilities.

by RSA to participate in these in-depth case studies to determine factors or variables that are related to high performance as defined for this project. The factors or variables may be decisions or activities that are under the control of the State VR agency, or they may be characteristics of the external State environment. Information from the case study analysis will be used in the design of an intervention model by the successful grantee that will serve as the basis for the demonstration projects to be carried out and evaluated by the grantee under this priority.

Proposed Priority

The Assistant Secretary for Special Education and Rehabilitative Services proposes a priority under the Special Demonstration Programs to fund a project to identify, develop, and implement model demonstration projects to improve outcomes for individuals receiving Social Security Disability Insurance (SSDI) who are served by State vocational rehabilitation (VR) agencies. Under this priority, the project must be designed to contribute to the following outcomes:

- Identify through in-depth case study of selected State VR agencies factors that account for the relatively better qualitative and quantitative results of these agencies in achieving employment outcomes at or above substantial gainful activity (SGA) for SSDI beneficiaries.
- Determine whether there are a sufficient number of factors related to the better employment outcome results that are within the control of the State VR agency, and if so, develop an intervention model incorporating those factors that can be replicated in other State VR agencies and that can be evaluated in terms of the model's impact after implementation.
- Implement and evaluate the intervention model in at least three State VR agencies, selected by the Rehabilitation Services Administration (RSA) based on information provided by the grantee, that are willing to implement the model. One criterion for selecting these State VR agencies is that SSDI beneficiaries whom they serve have an employment outcome rate at or below the rate for other State VR agencies.
- If the model demonstration projects show an improved employment rate for SSDI beneficiaries, complete the development of the intervention model incorporating information acquired through the model demonstration projects, recommend any strategies needed for implementation of the model by other State VR agencies, and disseminate the findings of this demonstration project to State VR agencies.

Types of Priorities

When inviting applications for a competition using one or more priorities, we designate the type of each priority as absolute, competitive preference, or invitational through a notice in the **Federal Register**. The effect of each type of priority follows:

Absolute priority: Under an absolute priority, we consider only applications that meet the priority (34 CFR 75.105(c)(3)).

Competitive preference priority: Under a competitive preference priority, we give competitive preference to an application by (1) awarding additional points, depending on the extent to which the application meets the priority (34 CFR 75.105(c)(2)(i)); or (2) selecting an application that meets the priority over an application of comparable merit that does not meet the priority (34 CFR 75.105(c)(2)(ii)).

Invitational priority: Under an invitational priority, we are particularly interested in applications that meet the priority. However, we do not give an application that meets the priority a preference over other applications (34 CFR 75.105(c)(1)).

Final Priority

We will announce the final priority in a notice in the **Federal Register**. We will determine the final priority after considering responses to this notice and other information available to the Department. This notice does not preclude us from proposing additional priorities, requirements, definitions, or selection criteria, subject to meeting applicable rulemaking requirements.

Note: This notice does *not* solicit applications. In any year in which we choose to use this priority, we invite applications through a notice in the **Federal Register.**

Executive Order 12866: This notice has been reviewed in accordance with Executive Order 12866. Under the terms of the order, we have assessed the potential costs and benefits of this proposed regulatory action.

The potential costs associated with this proposed regulatory action are those resulting from statutory requirements and those we have determined as necessary for administering this program effectively and efficiently.

In assessing the potential costs and benefits—both quantitative and qualitative—of this proposed regulatory action, we have determined that the benefits of the proposed priority justify the costs.

Intergovernmental Review: This program is subject to Executive Order 12372 and the regulations in 34 CFR part 79. One of the objectives of the Executive order is to foster an intergovernmental partnership and a strengthened federalism. The Executive order relies on processes developed by State and local governments for coordination and review of proposed Federal financial assistance.

This document provides early notification of our specific plans and actions for this program.

Accessible Format: Individuals with disabilities can obtain this document in an accessible format (*e.g.,* braille, large print, audiotape, or computer diskette) by contacting the Grants and Contracts Services Team, U.S. Department of Education, 400 Maryland Avenue, SW., room 5075, PCP, Washington, DC 20202–2550. Telephone: (202) 245–7363. If you use a TDD, call the FRS, toll free, at 1–800–877–8339.

Electronic Access to This Document: You can view this document, as well as all other documents of this Department published in the **Federal Register**, in the text or Adobe Portable Document Format (PDF) on the Internet at the following site: *http://www.ed.gov/news/fedregister.* To use PDF you must have the Adobe Acrobat Reader, which is available free at this site.

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: March 23, 2010.

Alexa Posny,

Assistant Secretary for Special Education and Rehabilitative Services.

[FR Doc. 2010–6787 Filed 3–25–10; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

National Institute on Disability and Rehabilitation Research (NIDRR)—Disability and Rehabilitation Research Projects and Centers Program—Rehabilitation Research and Training Centers (RRTCs)—Employment Outcomes for Individuals Who Are Blind or Visually Impaired

AGENCY: Office of Special Education and Rehabilitative Services, Department of Education.

ACTION: Notice of proposed priority.

Catalog of Federal Domestic Assistance (CFDA) Number: 84.133B–6.

SUMMARY: The Assistant Secretary for Special Education and Rehabilitative Services proposes a priority for the Disability and Rehabilitation Research Projects and Centers Program administered by NIDRR. Specifically, this notice proposes a priority for an RRTC. The Assistant Secretary may use this priority for competitions in fiscal year (FY) 2010 and later years. We take this action to focus research attention on areas of national need. We intend this priority to improve rehabilitation services and outcomes for individuals with disabilities.

DATES: We must receive your comments on or before April 26, 2010.

ADDRESSES: Address all comments about this notice to Donna Nangle, U.S. Department of Education, 400 Maryland Avenue, SW., room 6029, Potomac Center Plaza (PCP), Washington, DC 20202–2700.

If you prefer to send your comments by e-mail, use the following address: *donna.nangle@ed.gov.* You must include the term "Proposed Priority for an RRTC on Center on Employment Outcomes for Individuals who are Blind or Visually Impaired" in the subject line of your electronic message.

FOR FURTHER INFORMATION CONTACT: Donna Nangle. Telephone: (202) 245–7462 or by e-mail: *donna.nangle@ed.gov.*

If you use a telecommunications device for the deaf (TDD), call the Federal Relay Service (FRS), toll free, at 1–800–877–8339.

SUPPLEMENTARY INFORMATION: This notice of proposed priority is in concert with NIDRR's Final Long-Range Plan for FY 2005–2009 (Plan). The Plan, which was published in the **Federal Register** on February 15, 2006 (71 FR 8165), can be accessed on the Internet at the following site: *http://www.ed.gov/about/offices/list/osers/nidrr/policy.html.*

Through the implementation of the Plan, NIDRR seeks to: (1) Improve the quality and utility of disability and rehabilitation research; (2) foster an exchange of expertise, information, and training to facilitate the advancement of knowledge and understanding of the unique needs of traditionally underserved populations; (3) determine best strategies and programs to improve rehabilitation outcomes for underserved populations; (4) identify research gaps; (5) identify mechanisms of integrating research and practice; and (6) disseminate findings.

Invitation to Comment: We invite you to submit comments regarding this notice.

We invite you to assist us in complying with the specific requirements of Executive Order 12866 and its overall requirement of reducing regulatory burden that might result from this proposed priority. Please let us know of any further ways we could reduce potential costs or increase potential benefits while preserving the effective and efficient administration of the program.

During and after the comment period, you may inspect all public comments about this notice in room 6029, 550 12th Street, SW., PCP, Washington, DC, between the hours of 8:30 a.m. and 4:00 p.m., Washington, DC time, Monday through Friday of each week except Federal holidays.

Assistance to Individuals With Disabilities in Reviewing the Rulemaking Record: On request we will provide an appropriate accommodation or auxiliary aid to an individual with a disability who needs assistance to review the comments or other documents in the public rulemaking record for this notice. If you want to schedule an appointment for this type of accommodation or auxiliary aid, please contact the person listed under **FOR FURTHER INFORMATION CONTACT**.

Purpose of Program: The purpose of the Disability and Rehabilitation Research Projects and Centers Program is to plan and conduct research, demonstration projects, training, and related activities to develop methods, procedures, and rehabilitation technology that maximize the full inclusion and integration into society, employment, independent living, family support, and economic and social self-sufficiency of individuals with disabilities, especially individuals with the most severe disabilities, and to improve the effectiveness of services authorized under the Rehabilitation Act of 1973, as amended.

Program Authority: 29 U.S.C. 762(g) and 764(b)(2).

Applicable Program Regulations: 34 CFR part 350.

Proposed Priority

This notice contains one proposed priority.

Center on Employment Outcomes for Individuals Who are Blind or Visually Impaired

Background

Rehabilitation Research and Training Centers (RRTCs)

The purpose of the RRTC program is to improve the effectiveness of services authorized under the Rehabilitation Act of 1973, as amended, through advanced research, training, technical assistance, and dissemination activities in general problem areas, as specified by NIDRR. Such activities are designed to benefit rehabilitation service providers, individuals with disabilities, and the family members or other authorized representatives of individuals with disabilities. In addition, NIDRR intends to require all RRTC applicants to meet the requirements of the *General Rehabilitation Research and Training Centers (RRTC) Requirements* priority that it published in a notice of final priorities in the **Federal Register** on February 1, 2008 (72 FR 6132). Additional information on the RRTC program can be found at: *http://www.ed.gov/rschstat/research/pubs/res-program.html#RRTC.*

Statutory and Regulatory Requirements of RRTCs

RRTCs must—

- Carry out coordinated advanced programs of rehabilitation research;
- Provide training, including graduate, pre-service, and in-service training, to help rehabilitation personnel more effectively provide rehabilitation services to individuals with disabilities;
- Provide technical assistance to individuals with disabilities, their representatives, providers, and other interested parties;
- Demonstrate in their applications how they will address, in whole or in part, the needs of individuals with disabilities from minority backgrounds;
- Disseminate informational materials to individuals with disabilities, their representatives, providers, and other interested parties; and
- Serve as centers of national excellence in rehabilitation research for individuals with disabilities, their representatives, providers, and other interested parties.

Center on Employment Outcomes for Individuals Who Are Blind or Visually Impaired

Background

More than 21 million non-institutionalized adults, age 18 and above, report trouble seeing even when wearing glasses or contacts (U.S. Department of Health and Human Services, 2008). Of working-age (16–64 years) individuals who report blindness or serious difficulty seeing even when wearing glasses, 38.9 percent are employed (American Foundation for the Blind, 2009). In contrast, 71.2 percent of individuals in this age range with no disabling condition are employed (U.S. Department of Labor, 2009).

Previous research, some of which has been conducted by NIDRR-funded centers on blindness and low vision, has identified a number of barriers to, and facilitators of, employment for individuals who are blind or visually impaired. Facilitators include, but are not limited to, postsecondary education or training, braille literacy, inclusive corporate cultures, and some characteristics of vocational rehabilitation (VR) services (Capella-McDonall, 2005; Golub, 2006; Jernigan Institute, 2009; Kirchner & Smith, 2005). Barriers include negative employer attitudes about blindness and work disincentives experienced by Social Security beneficiaries. These disincentives include reduced benefits and potential ineligibility for health care coverage for those who become employed and whose income exceeds program income limits (Crudden, Sansing & Butler, 2005; Stapleton, O'Day, Livermore, & Imparato, 2006).

There is little empirical research that applies the results of this research on barriers and facilitators to the development and testing of specific practices, services, and interventions to improve employment outcomes in either the general population of individuals who are blind or who have visual impairments, or in subpopulations of individuals from this population who are at even greater risk for poor employment outcomes. Such populations include, but are not limited to, individuals who have more severe vision loss or who have multiple disabilities (National Longitudinal Transition Study-2, 2005; Shaw, Gold & Wolffe, 2007).

Moreover, although there are a variety of services, practices, and interventions that are currently being used to improve employment outcomes for individuals who are blind or visually impaired, there is little research that supports the effectiveness and use of these interventions and practices. Some of these interventions and practices directly relate to improving employment outcomes. These include the use of peer mentoring as well as collaborations between VR agencies and consumer organizations that can provide access to mentors and input regarding VR services and counselor training (Drew & Alan, 2006; Iowa Department for the Blind, 2009; National Federation of the Blind, 2009). Other practices and interventions, such as training to promote positive adjustment to an acquired disability, and orientation/mobility training, are intended to have more general effects, but appear to affect occupational success as well (Drew & Alan, 2004; Omvig, 2005). Research is necessary to determine the effectiveness of these practices and to identify and validate other promising practices that improve employment outcomes for this population.

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Stapleton, D.C., O'Day, B.L., Livermore, G.A., & Imparato, A.J. (2006). Dismantling the poverty trap: Disability policy for the twenty-first century. The Milbank Quarterly, 84, 701–732.

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Proposed Priority

The Assistant Secretary for Special Education and Rehabilitative Services proposes a priority for a Rehabilitation Research and Training Center (RRTC) on Employment Outcomes for Individuals Who are Blind or Visually Impaired. This RRTC must conduct research that contributes to improving competitive employment outcomes for individuals who are blind or visually impaired, consistent with the individual's informed choice and abilities (see section 100(a)(2)(B) of Title I of the Rehabilitation Act of 1973, as amended). For the purposes of this priority, this population is defined as individuals who have "central visual acuity of 20/200 or less in the better eye with the use of a correcting lens. An eye which is accompanied by a limitation in the fields of vision such that the widest diameter of the visual field subtends an angle no greater than 20 degrees shall be considered for purposes of this paragraph as having a central visual acuity of 20/200 or less" (42 U.S.C. 416(i)(1)(B)). Under this priority, the RRTC must contribute to the following outcomes:

(a) Evidence-based interventions and practices designed to facilitate competitive employment outcomes for individuals who are blind or visually impaired. The RRTC must contribute to this outcome by developing and evaluating new interventions and practices, evaluating practices currently in use, or by conducting both of these types of research.

(b) New knowledge about employment interventions and practices for individuals who are blind or visually impaired, and who are also at greater risk for poor employment outcomes due to other individual characteristics (e.g., individuals with more severe vision loss or individuals with multiple disabilities). The RRTC must contribute to this outcome by conducting research with at least one at-risk group (as described earlier in this paragraph) to: develop and evaluate new interventions or practices, evaluate practices currently being used with members of the at-risk group, or by conducting both of these

types of research. Applicants must identify the specific at-risk group or groups they propose to study, provide evidence that the selected population or populations are, in fact, at greater risk for poor employment outcomes, and explain how the proposed interventions and practices are expected to address the needs of the population or populations.

(c) Increased incorporation of research findings into practice and policy. The RRTC must contribute to this outcome by:

(1) Collaborating with providers of vocational rehabilitation (VR) services, employer groups, and stakeholders (e.g., individuals who are blind or visually impaired or consumer groups) in conducting the work of the RRTC; and

(2) Conducting training and dissemination activities to facilitate the utilization of research findings in employment and VR settings.

(d) In addition, through coordination with the NIDRR Project Officer, this RRTC must collaborate with:

(1) Appropriate NIDRR-funded grantees, including knowledge translation grantees; and

(2) Relevant Office of Special Education Programs and Rehabilitation Services Administration grantees.

Types of Priorities

When inviting applications for a competition using one or more priorities, we designate the type of each priority as absolute, competitive preference, or invitational through a notice in the **Federal Register**. The effect of each type of priority follows:

Absolute priority: Under an absolute priority, we consider only applications that meet the priority (34 CFR 75.105(c)(3)).

Competitive preference priority: Under a competitive preference priority, we give competitive preference to an application by (1) awarding additional points, depending on the extent to which the application meets the priority (34 CFR 75.105(c)(2)(i)); or (2) selecting an application that meets the priority over an application of comparable merit that does not meet the priority (34 CFR 75.105(c)(2)(ii)).

Invitational priority: Under an invitational priority, we are particularly interested in applications that meet the priority. However, we do not give an application that meets the priority a preference over other applications (34 CFR 75.105(c)(1)).

Final Priority

We will announce the final priority in a notice in the **Federal Register**. We will determine the final priority after considering responses to this notice and other information available to the Department. This notice does not preclude us from proposing additional priorities, requirements, definitions, or selection criteria, subject to meeting applicable rulemaking requirements.

Note: This notice does *not* solicit applications. In any year in which we choose to use this priority, we invite applications through a notice in the **Federal Register.**

Executive Order 12866: This notice has been reviewed in accordance with Executive Order 12866. Under the terms of the order, we have assessed the potential costs and benefits of this proposed regulatory action.

The potential costs associated with this proposed regulatory action are those resulting from statutory requirements and those we have determined as necessary for administering this program effectively and efficiently.

In assessing the potential costs and benefits—both quantitative and qualitative—of this proposed regulatory action, we have determined that the benefits of the proposed priority justify the costs.

Discussion of Costs and Benefits

The benefits of the Disability and Rehabilitation Research Projects and Centers Program have been well established over the years in that similar projects have been completed successfully. This proposed priority will generate new knowledge and technologies through research, development, dissemination, utilization, and technical assistance projects.

Another benefit of this proposed priority is that the establishment of a new RRTC will support and will improve the lives of individuals with disabilities. The new RRTC will generate, disseminate, and promote the use of new information that will improve the options for individuals with disabilities to obtain, retain, and advance in employment.

Intergovernmental Review: This program is not subject to Executive Order 12372 and the regulations in 34 CFR part 79.

Accessible Format: Individuals with disabilities can obtain this document in an accessible format (*e.g.,* braille, large print, audiotape, or computer diskette) by contacting the Grants and Contracts Services Team, U.S. Department of Education, 400 Maryland Avenue, SW., Room 5075, PCP, Washington, DC 20202–2550. Telephone: (202) 245–7363. If you use a TDD, call the FRS, toll free, at 1–800–877–8339.

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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: March 23, 2010.

Alexa Posny,

Assistant Secretary for Special Education and Rehabilitative Services.

[FR Doc. 2010–6783 Filed 3–25–10; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF ENERGY

Proposed Agency Information Collection

AGENCY: U.S. Department of Energy.

ACTION: Notice and request for OMB review and comment.

SUMMARY: Pursuant to the Paperwork Reduction Act of 1995, the Department of Energy (DOE) invites public comment on a proposed emergency collection of information that DOE is developing to collect data on the status of activities, project progress, jobs created and retained, spend rates and performance metrics under the American Recovery and Reinvestment Act of 2009. Comments are invited on: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions 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 respondents, including through the use of automated collection techniques or other forms of information technology.

DATES: Comments regarding this collection must be received on or before April 9, 2010. If you anticipate difficulty in submitting comments within that period, contact the person listed in **ADDRESSES** as soon as possible.

ADDRESSES: Written comments may be sent to:

Anthony Brooks, Department of Energy, 1000 Independence Ave., SW., Washington, DC 20585.

Or by fax at 202–586–6969, or by e-mail at *recoveryinformationcenter@hq.doe.gov* and

DOE Desk Officer, Office of Information and Regulatory Affairs, Office of Management and Budget, New Executive Office Building, Room 10102, 725 17th Street, NW., Washington, DC 20503.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the information collection instrument and instructions should be directed to Anthony Brooks at *recoveryinformationcenter@hq.doe.gov.*

SUPPLEMENTARY INFORMATION: This emergency information collection request contains: (1) New; (2) Information Collection Request Title: Department of Energy (DOE); (3) Type of Review: Emergency; (4) Purpose: To collect data on the status of activities, project progress, jobs created and retained, spend rates and performance metrics under the American Recovery and Reinvestment Act of 2009. This will ensure adequate information is available to support sound project management and to meet the transparency and accountability associated with the Recovery Act by requesting approval for monthly reporting; (5) Annual Estimated Number of Respondents: 3,700; (6) Annual Estimated Number of Total Responses: 14,800; (7) Annual Estimated Number of Burden Hours: Approximately 93,240; (8) Annual Estimated Reporting and Recordkeeping Cost Burden: $13,986,000.

Statutory Authority: Title IV of the American Recovery and Reinvestment Act of 2009, Pub. L. 11–5.

Issued in Washington, DC, on March 19, 2010.

Jay Hoffman,

Director, Office of Program Analysis & Evaluation, Office of CFO.

[FR Doc. 2010–6721 Filed 3–25–10; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #1

March 18, 2010.

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER96–1551–022; ER09–746–003; ER01–615–018.

Applicants: Public Service Company of New Mexico; Optim Energy Marketing, LLC.

Description: Public Service Company of New Mexico *et al.* submits Supplement to Triennial Market Power Update.

Filed Date: 03/08/2010.

Accession Number: 20100315–0088.

Comment Date: 5 p.m. Eastern Time on Monday, March 29, 2010.

Docket Numbers: ER06–733–007.

Applicants: Midland Cogeneration Venture Limited Partnership.

Description: Notice of Non-Material Change in Status of Midland Cogeneration Venture Limited Partnership.

Filed Date: 03/15/2010.

Accession Number: 20100315–5240.

Comment Date: 5 p.m. Eastern Time on Monday, April 5, 2010.

Docket Numbers: ER10–520–001.

Applicants: PJM Interconnection, L.L.C.

Description: PJM Interconnection, LLC submits Wholesale Market Participation Agreement designated as Second Revised Service Agreement No. 1688, effective 2/28/2010 with WM Renewable Energy LLC *et al.*

Filed Date: 03/17/2010.

Accession Number: 20100318–0204.

Comment Date: 5 p.m. Eastern Time on Wednesday, April 7, 2010.

Docket Numbers: ER10–730–000.

Applicants: Wheelabrator Portsmouth Inc.

Description: Supplemental Information of Wheelabrator Portsmouth Inc.

Filed Date: 03/09/2010.

Accession Number: 20100309–5082.

Comment Date: 5 p.m. Eastern Time on Tuesday, March 30, 2010.

Docket Numbers: ER10–854–001.

Applicants: CornerStone Power Development, LLC.

Description: CornerStone Power Development, LLC submits updates to the market based rate application filed 3/12/2010.

Filed Date: 03/16/2010.

Accession Number: 20100317–0208.

Comment Date: 5 p.m. Eastern Time on Friday, March 26, 2010.

Docket Numbers: ER10–900–000.

Applicants: Black Hills Power, Inc.

Description: Black Hills Power Inc submits notice of cancellation of its Rate Schedule FERC No. 48.

Filed Date: 03/17/2010.

Accession Number: 20100318–0203.

Comment Date: 5 p.m. Eastern Time on Wednesday, April 7, 2010.

Docket Numbers: ER10–901–000.

Applicants: PJM Interconnection, L.L.C.

Description: PJM Interconnection, LLC submits executed Wholesale Market Participation Agreement with Dauphin County Industrial Development Authority and PPL Electric Utilities Corporation.

Filed Date: 03/17/2010.

Accession Number: 20100318–0202.

Comment Date: 5 p.m. Eastern Time on Wednesday, April 7, 2010.

Docket Numbers: ER10–902–000.

Applicants: ISO New England Inc. & New England Power Pool.

Description: ISO New England Inc *et al.* submit revised tariff sheets implementing changes to Market Rule 1.

Filed Date: 03/17/2010.

Accession Number: 20100318–0201.

Comment Date: 5 p.m. Eastern Time on Wednesday, April 7, 2010.

Docket Numbers: ER10–905–000.

Applicants: California Power Exchange Corporation.

Description: Petition to Extend Existing Wind-Up Charge Settlement of California Power Exchange Corporation.

Filed Date: 03/18/2010.

Accession Number: 20100318–5034.

Comment Date: 5 p.m. Eastern Time on Thursday, April 8, 2010.

Take notice that the Commission received the following electric reliability filings:

Docket Numbers: RR10–8–000.

Applicants: North American Electric Reliability Corporation.

Description: Errata to the North American Electric Reliability Corporation 3/15/10 filing, to Correct Attachment 1 of NERC's March 15, 2010 Petition for Approval of Amendments to the NERC Rules of Procedure Regarding the CCC Program.

Filed Date: 03/16/2010.

Accession Number: 20100316–5079.

Comment Date: 5 p.m. Eastern Time on Tuesday, April 6, 2010.

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. 2010–6702 Filed 3–25–10; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP10–50–000]

Petal Gas Storage, L.L.C.; Notice of Intent To Prepare an Environmental Assessment for the Proposed Cavern 12A Conversion Gas Storage Project and Request for Comments on Environmental Issues

March 19, 2010.

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 Cavern 12A Conversion Gas Storage Project involving construction and operation of facilities proposed by Petal Gas Storage, L.L.C. (Petal) in Forrest County, Mississippi. This 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 we will use to gather input from the public and interested agencies on the project. Your input will help the Commission staff determine what issues need to be evaluated in the EA. Please note that the scoping period will close on April 23, 2010.

This notice is being sent to the Commission's current environmental mailing list for this project. State and local government representatives are asked to notify their constituents of this proposed project and encourage them to comment on their areas of concern.

If you are a landowner receiving this notice, you may be contacted by a pipeline company representative about the acquisition of an easement to construct, operate, and maintain the proposed facilities. The company would seek to negotiate a mutually acceptable agreement. However, if the project is approved by the Commission, that approval conveys with it the right of eminent domain. Therefore, if easement negotiations fail to produce an agreement, the pipeline company could initiate condemnation proceedings in accordance with state law.

A fact sheet prepared by the FERC entitled "An Interstate Natural Gas Facility On My Land? What Do I Need To Know?" was attached to the project notice that Petal provided to landowners. This fact sheet addresses a number of typically asked questions, including the use of eminent domain and how to participate in the Commission's proceedings. It is also available for viewing on the FERC Web site (*http://www.ferc.gov*).

Summary of the Proposed Project

Petal proposes to purchase an existing salt-brine storage cavern (12A) from an affiliate, and convert it into a natural gas storage cavern. The proposed facilities would mostly be within Petal's existing storage field on the Petal Salt Dome. The project would increase Petal's firm natural gas storage capacity to meet anticipated growing demand for storage services in the Southeastern United States. Petal would rework the existing well and expand the underground storage capacity of Cavern 12A through solution mining. Cavern 12A would have an overall capacity of about 8.2 billion cubic feet (Bcf), consisting of 5.0 Bcf of working gas and 3.2 Bcf of cushion gas.

The proposed facilities include:

- Existing Cavern 12A to be converted from brine storage to natural gas storage;
- New 16-inch-diamter pipeline, about 1,525-feet-long, connecting Cavern 12A with Petal's existing withdrawal header between existing Caverns 6 and 7; and
- New appurtenant facilities grouped near existing Petal Compressor Station 2, including a withdrawal separator, heat exchanger, hot oil pump, pressure regulator, and Triethylene Glycol contactor and regeneration skid.

The general location of the proposed facilities is shown in Appendix 1.[1]

Land Requirements for Construction

Petal estimated that about 39 acres of land would be disturbed by construction of the proposed facilities. About 5.8 acres would be retained for Petal's permanent operational easement, following construction. The remaining temporary construction acreage would be restored to its former condition and uses.

The EA Process

The National Environmental Policy Act (NEPA) requires the Commission to take into account the environmental impacts that could result from an action whenever it considers the issuance of a Certificate of Public Convenience and Necessity. NEPA also requires us[2] 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, the Commission requests public comments on the scope of the issues to be addressed in the EA. All comments received will be considered during the preparation of the EA.

In the EA we 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;
- Water resources and wetlands;
- Vegetation and wildlife;
- Cultural resources;
- Land use;
- Air quality and noise; and
- Safety and reliability.

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[1] The appendices referenced in this notice are not being printed in the **Federal Register.** Copies of appendices were sent to all those receiving this notice in the mail and are available at *http://www.ferc.gov* using the link called "eLibrary" 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 last page of this notice.

[2] "We," "us," and "our" refer to the environmental staff of the Commission's Office of Energy Projects.

We will also evaluate reasonable alternatives to the proposed project or portions of the project, and make recommendations on how to lessen or avoid impacts on various resources. Our independent analysis of the environmental issues will be presented in the EA.

The EA will be placed in the public record and, depending on the comments received during the scoping process, may be published and distributed to the public. A comment period will be allotted if the EA is published for review. 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 of this notice (below).

With this notice, we are asking agencies with jurisdiction and/or special expertise with respect to environmental issues to formally cooperate with us in the preparation of the EA. These agencies may choose to participate once they have evaluated the proposal relative to their responsibilities. Agencies that would like to request cooperating agency status should follow the instructions for filing comments provided under the Public Participation section of this notice (below).

Consultations Under Section 106 of the National Historic Preservation Act

In accordance with the Advisory Council on Historic Preservation's implementing regulations, we are using this notice to solicit the views of the public on the project's potential effects on historic properties.[3] We will document our findings on the impacts on cultural resources, and summarize the status of consultations under section 106 of the National Historic Preservation Act in our EA.

Public Participation

You can make a difference by providing us with your specific comments or concerns about the project. Your comments should focus on the potential environmental effects, reasonable alternatives, and measures to avoid or lessen environmental impacts. The more specific your comments, the more useful they will be. To ensure that your comments are timely and properly recorded, please send your comments so that they will be received in Washington, DC on or before April 23, 2010.

For your convenience, there are three methods which you can use to submit your written comments to the Commission. The Commission encourages electronic filing of comments and has expert eFiling staff available to assist you at 202–502–8258 or *efiling@ferc.gov.*

(1) You may file your comments electronically by using the Quick Comment feature, which is located at *http://www.ferc.gov* under the link called "*Documents and Filings.*" Quick Comment is an easy method for interested persons to submit text-only comments on a project;

(2) You may file your comments electronically by using the "eFiling" feature that is listed under the "*Documents and Filings*" link. eFiling involves preparing your submission in the same manner as you would if filing on paper, and then saving the file on your computer's hard drive. You will attach that file to your submission. New eFiling users must first create an account by clicking on the links called "*Sign up*" or "*eRegister.*" You will be asked to select the type of filing you are making. A comment on a particular project is considered a "Comment on a Filing;" or

(3) You may file a paper copy of your comments at the following address: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, NE., Room 1A, Washington, DC 20426.

Environmental Mailing List

The environmental mailing list includes federal, state, and local government representatives and agencies; elected officials; environmental and public interest groups; Indian tribes that historically used or occupied the project area; other interested parties; and local libraries and newspapers. This list also includes all affected landowners (as defined in the Commission's regulations) who are potential right-of-way grantors, whose property may be used temporarily for project purposes, or who own homes within certain distances of aboveground facilities, and anyone who submits comments on the project. We will update the environmental mailing list as the analysis proceeds to ensure that we send the information related to this environmental review to all individuals, organizations, and government entities interested in and/or potentially affected by the proposed project.

If the EA is published for distribution, copies will be sent to the environmental mailing list for public review and comment. If you would prefer to receive a paper copy of the document instead of the CD version or would like to remove your name from the mailing list, please return the attached Information Request (Appendix 2).

Becoming an Intervenor

In addition to involvement in the EA scoping process, you may want to become an "intervenor," which is an official party to the Commission's proceeding. Intervenors play a more formal role in the process and are able to file briefs, appear at hearings, and be heard by the courts if they choose to appeal the Commission's final ruling. An intervenor formally participates in the proceeding by filing a request to intervene. Instructions for becoming an intervenor are included in the User's Guide under the "e-filing" link on the Commission's Web site.

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 Internet at *http://www.ferc.gov* using the "eLibrary" link. Click on the eLibrary link, click on "General Search" and enter the docket number, excluding the last three digits, in the Docket Number field (i.e., CP10–50). 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, 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. 2010–6682 Filed 3–25–10; 8:45 am]

BILLING CODE 6717–01–P

[3] The Advisory Council on Historic Preservation's regulations are at Title 36, Code of Federal Regulations, Part 800. Historic properties are defined in those regulations as any prehistoric or historic district, site, building, structure or object included in or eligible for inclusion in the National Register of Historic Places.

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ER10–853–000]

Dynamic PL, Inc.; Supplemental Notice That Initial Market-Based Rate Filing Includes Request for Blanket Section 204 Authorization

March 19, 2010.

This is a supplemental notice in the above-referenced proceeding of Dynamic PL, Inc's application for market-based rate authority, with an accompanying rate tariff, noting that such application includes a request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability.

Any person desiring to intervene or to protest should file with the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC, 20426, in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and 385.214). Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant.

Notice is hereby given that the deadline for filing protests with regard to the applicant's request for blanket authorization, under 18 CFR part 34, of future issuances of securities and assumptions of liability, is April 8, 2010.

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-referenced proceeding 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.

Kimberly D. Bose,

Secretary.

[FR Doc. 2010–6681 Filed 3–25–10; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Office of Energy Efficiency and Renewable Energy

Nationwide Limited Public Interest Waivers Under Section 1605 (Buy American) of the American Recovery and Reinvestment Act of 2009 (Recovery Act)

AGENCY: Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy (DOE).

ACTION: Notice of limited waivers.

SUMMARY: The Office of Energy Efficiency and Renewable Energy (EERE) of the U.S. Department of Energy hereby provides notice that on March 19, 2010, the Assistant Secretary for EERE granted nationwide limited waivers of the Buy American requirements of the American Recovery and Reinvestment Act of 2009 (Recovery Act; Pub. L. 111–5) under the authority of section 1605(b)(1) [application of the restrictions of section 1605 would be inconsistent with the public interest] for the purchase of light-emitting diode LED lighting (lamps, fixtures, and any supporting components) and heating, ventilation and air conditioning (HVAC) units. These nationwide limited waivers apply to projects using EERE Recovery Act funds for the construction, alteration, maintenance and repair of a public building or public work. These limited waivers only apply in circumstances where the recipient of EERE Recovery Act funds ("grantee") has taken substantial steps to commit funds for the purchase of LED lights or HVAC units between February 17, 2009 and March 31, 2010. Substantial steps to commit funds would include, but are not limited to: (1) issuing a Request for Proposals (RFP) on or before March 31, 2010 (applicable only where the grantee accepts a proposal received under that RFP); (2) in the case of a sole source selection: placing an order for the goods on or before March 31, 2010; (3) commencing a bidding process on or before March 31, 2010; (4) in circumstances where the grantee solicited quotes without an RFP: the grantee purchases the goods based on a quote dated on or before March 31, 2010 and the order for the goods is placed on or before March 31, 2010; and (5) grantee has executed a contract or purchase agreement with a supplier to acquire affected goods between February 17, 2009 and March 31, 2010.

On March 31, 2010, these limited waivers of Buy American provisions will expire, with the exception of LED traffic lights, arrows, and crosswalk signals, which are covered by a nationwide categorical waiver based on domestic nonavailability issued on February 11, 2010. After March 31, 2010, EERE grantees are required to procure LED lighting and HVAC units from domestic manufacturers in accordance with the Recovery Act Buy American provisions.

DATES: *Effective Date:* March 19, 2010.

FOR FURTHER INFORMATION CONTACT: Benjamin Goldstein, Energy Technology Program Specialist, Office of Energy Efficiency and Renewable Energy (EERE), (202) 287–1553, Department of Energy, 1000 Independence Avenue, SW., Mailstop EE–2K, Washington, DC 20585.

SUPPLEMENTARY INFORMATION: Section 1605 of the Recovery Act prohibits the use of recovery funds for the construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States, or unless a waiver is granted by the head of the Federal department or agency. A waiver may be granted if the head of the Federal department or agency determines that one of three listed exceptions applies: (1) The application of Section 1605 requirements would be inconsistent with the public interest; (2) the iron, steel, or relevant manufactured good is not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality; or (3) the cost of domestic iron, steel, or relevant manufactured goods will increase the cost of the overall project by more than 25 percent.

In accordance with section 1605(c) of the Recovery Act and Section 176.80 of Title 2 of the Code of Federal Regulations, DOE hereby provides notice that, pursuant to a delegation of authority by the Secretary of Energy, dated November 10, 2009, the Assistant Secretary, EERE, has granted limited nationwide waivers of the requirements of Section 1605 of the Recovery Act for LED lighting (lamps, fixtures, and any supporting components) and heating, ventilation and air conditioning (HVAC) units in circumstances where the recipient of EERE Recovery Act funds ("grantee") has taken substantial steps to

commit funds for the purchase of LED lights or HVAC units between February 17, 2009 and March 31, 2010. Under the authority of section 1605(b)(1) of the Recovery Act, the Assistant Secretary, EERE, has determined that the application of section 1605 requirements in these circumstances would be inconsistent with the public interest.

The limited waivers for these two categories of manufactured goods are intended to resolve the confusion surrounding the characterization of LED lights and HVAC units as "supply" items, and thus not subject to the Recovery Act Buy American provisions. The concept of the "supply" item has its origins in the Buy American Act (41 U.S.C. 10a–10d) and the Federal Acquisition Regulation (FAR), neither of which applies to section 1605 of the Recovery Act. The concept of a "supply" item has no significance in the context of section 1605 (the Buy American provisions) of the Recovery Act. The Buy American provisions apply to all iron, steel, and manufactured goods used for a project funded by Recovery Act appropriations for the construction, alteration, maintenance, or repair of a public building or public work. However, there is no requirement with regard to the origin of components or subcomponents in manufactured goods used in the project, as long as the manufacturing occurs in the United States (2 CFR 176.70).

However, it is understandable that a general lack of familiarity with the Buy American provisions would lead Recovery Act stakeholders to reference a similar set of procurement regulations—such as those codified by the FAR and Buy American Act—for guidance in understanding and interpreting section 1605 of the Recovery Act. This confusion ultimately led some recipients of EERE Recovery Act funds to rely on the "supply" item characterization to procure some LED lighting products and HVAC units from foreign manufacturers, without first seeking and obtaining an official waiver of section 1605 of the Recovery Act.

The purpose of the Recovery Act Buy American provisions is to support economic recovery by driving investment into the domestic manufacturing sector and recycling Recovery Act dollars within the U.S. economy. Given that the majority of Recovery Act-related procurement for EERE-funded projects has yet to occur, the Buy American provisions still have ample opportunity to fulfill their purpose and potential. This nationwide limited waiver being issued for LED lighting and HVAC units is critical to resolving the existing confusion, clearly elucidating the requirements of section 1605 of the Recovery Act, and moving forward in a proactive manner.

To support this potential, facilitate the implementation of section 1605 of the Recovery Act, and ensure that Recovery Act funds are deployed expeditiously, EERE is operationalizing a robust and proactive strategy to locate domestic manufacturers for the hard-to-find products sought by grantees. This strategy is outlined in a Request for Information published in **Federal Register** Vol. 75, No. 23 on Thursday, February 4 (and posted on the EERE Buy American Web page *http://www1.eere.energy.gov/recovery/buy_american_provision.html*), and demonstrates EERE's commitment to the fulfillment of the economic and job-creation potential of the Recovery Act Buy American provisions.

Finally, the installation of LED lights and more efficient HVAC units is a proven strategy to achieve impressive energy savings, reduce energy expenditures, and to create immediate jobs in the building, construction, and electrical trades. All three of these attributes can support near-term economic recovery and long-term sustainability in locations across the country. Hence, the installation of these products has inherently supported the goals of the Recovery Act and—as a popular use of Recovery Act funds by EERE grantees—will continue to do so in the unambiguous regulatory landscape made possible by this nationwide limited waiver.

This **SUPPLEMENTARY INFORMATION** constitutes the detailed written justification required by Section 1605(c) for waivers based on a finding under subsection (b).

This waiver determination is pursuant to the delegation of authority by the Secretary of Energy to the Assistant Secretary for Energy Efficiency and Renewable Energy with respect to expenditures within the purview of her responsibility. Consequently, this waiver applies to EERE projects carried out under the Recovery Act.

Authority: Pub. L. 111–5, section 1605.

Dated: March 19, 2010.

Cathy Zoi,

Assistant Secretary for Energy Efficiency and Renewable Energy, U.S. Department of Energy.

[FR Doc. 2010–6720 Filed 3–25–10; 8:45 am]

BILLING CODE 6450–01–P

ENVIRONMENTAL PROTECTION AGENCY

[ER–FRL–8989–4]

Environmental Impact Statements and Regulations; Availability of EPA Comments

Availability of EPA comments prepared pursuant to the Environmental Review Process (ERP), under section 309 of the Clean Air Act and Section 102(2)(c) of the National Environmental Policy Act as amended. Requests for copies of EPA comments can be directed to the Office of Federal Activities at 202–564–7146 or *http://www.epa.gov/compliance/nepa/.* An explanation of the ratings assigned to draft environmental impact statements (EISs) was published in FR dated July 17, 2009 (74 FR 34754).

Notice

In accordance with Section 309(a) of the Clean Air Act, EPA is required to make its comments on EISs issued by other Federal agencies public. Historically, EPA has met this mandate by publishing weekly notices of availability of EPA comments, which includes a brief summary of EPA's comment letters, in the **Federal Register**. Since February 2008, EPA has been including its comment letters on EISs on its Web site at: *http://www.epa.gov/compliance/nepa/eisdata.html.* Including the entire EIS comment letters on the Web site satisfies the Section 309(a) requirement to make EPA's comments on EISs available to the public. Accordingly, after March 31, 2010, EPA will discontinue the publication of this notice of availability of EPA comments in the **Federal Register**.

Draft EISs

EIS No. 20090429, ERP No. D–IBR–L39067–ID, Minidoka Dam Spillway Replacement Project, To Prevent Structural Failure of the Minidoka Dam Spillway and Canal Headworks, Lake Walcott, Minidoka County, ID.

Summary: EPA expressed environmental concerns about water quality impacts, the potential extent of jurisdictional wetlands, and the extent to which the wetlands below the dam would be monitored and adaptively managed. Rating EC1.

EIS No. 20090432, ERP No. D–NPS–D65042–DC, National Mall Plan, To Prepare a Long-Term Plan that will Restore National Mall, Implementation, Washington, DC.

Summary: EPA expressed environmental concerns about impacts

to water resources, fish and wildlife, and soils. Rating EC2.

EIS No. 20090436, ERP No. D–AFS–L65525–OR, Canyon Fuels and Vegetation Management Project, Proposed Fuels and Vegetation Treatment to Reduce the Risk of Stand Loss Due to Overly Dense Stand Conditions, Lookout Mountain Ranger District, Ochoco National Forest, Crook County, OR.

Summary: EPA expressed environmental concerns about water quality and habitat impacts, and recommend the inclusion of additional information on riparian harvest prescriptions and grazing management in riparian habitat conservation areas. Rating EC1.

EIS No. 20100004, ERP No. D–NOA–A91078–00, Amendment 11 to the Atlantic Mackerel, Squid, and Butterfish (MSB), Fishery Management Plan (FMP), Establish an Atlantic Mackerel Limited Access Program, Implementation.

Summary: EPA does not object to the proposed action. Rating LO.

EIS No. 20100005, ERP No. DS–FHW–F40427–WI, WI–23 Highway Project, Transportation Improve between Fond du Lac and Plymouth, Fond du Lac and Sheboygan Counties, WI.

Summary: EPA expressed environmental concerns about wetlands, air quality, upland habitat, noise, and cumulative impacts. Rating EC2.

EIS No. 20100028, ERP No. DS–AFS–J65146–WY, Bridger-Teton National Forest, Proposal to Determine What Terms and Conditions to Allow Development of Oil and Gas Leasing in the Wyoming Range, Sublette County, WY.

Summary: EPA does not object to the proposed action. Rating LO.

Final EISs

EIS No. 20100020, ERP No. F–FTA–G59002–TX, University Corridor Fixed Guideway Project, To Implement Transit Improvements from Hillcroft Transit Center to the Vicinity of the University of Houston (UH)—Central Campus or the Eastwood Transit Center, City of Houston, Harris County, TX.

Summary: No formal comment letter was sent to the preparing agency.

EIS No. 20100025, ERP No. F–COE–E30043–NC, North Topsail Beach Shoreline Protection Project, Seeking Federal and State Permits to Allow Implementation of a Non-Federal Shoreline and Inlet Management Project, New River Inlet, Onslow County, NC.

Summary: EPA expressed environmental concerns about the impacts to marine habitats and migratory species from dredge/fill actions.

EIS No. 20100026, ERP No. F–NOA–E91029–00, Amendment 31 to the Fishery Management Plan for Reef Fish Resources, Addresses Bycatch of Sea Turtles in the Bottom Longline Component of the Reef Fish Fishery, Gulf of Mexico.

Summary: While EPA continues to support the reduction of sea turtle bycatch in bottom longline Reef Fish Fishery proposed by Amendment 31, EPA expressed concern that additional research is needed to supplement the proposed actions to successfully reduce turtle bycatch.

EIS No. 20100043, ERP No. F–FHW–H40194–IA, Southeast (SE) Connector in Des Moines, Iowa, To Provide a Safe and Efficient Link between the MLK Jr. Parkway at SE 14th Street to the U.S. 65 Bypass, Funding, US Army COE Section 404 and NPDES Permits, Polk County, IA.

Summary: EPA's previous comments have been addressed; therefore, EPA does not object to the proposed action.

Dated: March 23, 2010.

Kenneth Mittelholtz,

Deputy Director, NEPA Compliance Division, Office of Federal Activities.

[FR Doc. 2010–6771 Filed 3–25–10; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

[ER–FRL–8989–3]

Environmental Impacts Statements; Notice of Availability

Responsible Agency: Office of Federal Activities, General Information (202) 564–1399 or *http://www.epa.gov/compliance/nepa/*.

Weekly receipt of Environmental Impact Statements

Filed 03/15/2010 Through 03/19/2010

Pursuant to 40 CFR 1506.9.

Notice

In accordance with Section 309(a) of the Clean Air Act, EPA is required to make its comments on EISs issued by other Federal agencies public. Historically, EPA has met this mandate by publishing weekly notices of availability of EPA comments, which includes a brief summary of EPA's comment letters, in the **Federal Register**. Since February 2008, EPA has been including its comment letters on EISs on its Web site at: *http://www.epa.gov/compliance/nepa/eisdata.html.* Including the entire EIS comment letters on the Web site satisfies the Section 309(a) requirement to make EPA's comments on EISs available to the public. Accordingly, after March 31, 2010, EPA will discontinue the publication of this notice of availability of EPA comments in the **Federal Register**.

EIS No. 20100087, Final EIS, USFS, NV, Bridgeport Travel Management Project, To Provide the Primary Framework for Sustainable Management of Motor Vehicle Use on the Bridgeport Ranger District, Humboldt-Toiyabe National Forest, Mono County, CA and Lyon, Douglas, and Mineral Counties, NV, Wait Period Ends: 04/26/2010, Contact: James Winfrey, 775–355–5308.

EIS No. 20100088, Final EIS, USFS, ID, Small-Scale Suction Dredging in Lolo Creek and Moose Creek Project, Updated Information to Analysis Three Alternatives, Clearwater National Forest, North Fork Ranger District, Clearwater and Idaho Counties, ID, Wait Period Ends: 04/26/2010, Contact: Douglas Gober, 208–476–4541.

EIS No. 20100089, Draft EIS, STB, AK, Port MacKenzie Rail Line Extension Construction and Operation, Alaska Railroad Corporation, Port MacKenzie, AK, Comment Period Ends: 05/10/2010, Contact: Dave Navecky 202–245–0294 EIS No. 20100090, Third Draft EIS (Tiering), USFS, OR, Mt. Ashland Ski Area Expansion, To Address Matters Identified by the Ninth Circuit Court of Appeals for the Existing 2004 FEIS, Ashland Ranger District, Rogue River National Forest and Scott River Ranger District, Klamath National Forest, Jackson County, OR, Comment Period Ends: 05/10/2010, Contact: Steve Johnson, 541–552–2900.

EIS No. 20100091, Final EIS, USFS, MT, Bozeman Municipal Watershed Project, To Implement Fuel Reduction Activities, Bozeman Ranger District, Gallatin National Forest, City of Bozeman Municipal Watershed, Gallatin County, MT, Wait Period Ends: 04/26/2010, Contact: Jim Devitt, 406–587–6749.

EIS No. 20100092, Final EIS, USFS, CA, Shasta-Trinity National Forest Motorized Travel Management Project, Proposal to Prohibit Cross-County Motor Vehicle Travel off Designated National Forest Transportation System (NFTS) Roads, Motorized Trails and Areas by the Public Except as Allowed by Permit

or other Authorization (excluding snowmobile use), CA, Wait Period Ends: 04/26/2010, Contact: Tom Kisanuki, 530–226–2421.

EIS No. 20100093, Draft EIS, NRC, TX, South Texas Project, Electric Generating Station Units 3 and 4, Application for Combined Licenses (COLs) for Construction Permits and Operating Licenses, Matagorda County, TX, Comment Period Ends: 06/09/2010, Contact: Jessie M. Muir, 301–415–0491.

EIS No. 20100094, Final EIS, NRC, VA, North Anna Power Station Unit 3, Combined License (COL) application for Construction and Operation of a Based-Load Nuclear Power Plant, (NUREG–1917), in the Town of Mineral, Louisa County, VA, Wait Period Ends: 04/26/2010, Contact: Alicia Williamson, 301–415–1878.

EIS No. 20100095, Final EIS, FHWA, WI, WI–15 Expansion, from New London to Greenville, Funding, U.S. Army COE 404 Permit, Outagamie County, WI, Wait Period Ends: 04/26/2010, Contact: Allen Radliff, 608–829–7500.

EIS No. 20100096, Draft EIS, BLM, CA, Imperial Sand Dunes Recreation Area Management Plan, Implementation, Imperial County, CA, Comment Period Ends: 06/23/2010, Contact: Erin Dreyfuss, 916–978–4642.

Amended Notices

EIS No. 20090362, Draft EIS, DOE, WA, Hanford Site Tank Closure and Waste Management Project, Implementation, Richland, Benton County, WA, Comment Period Ends: 05/03/2010, Contact: Mary Beth Burandi, 888–829–6347. Revision to FR Notice Published 10/30/2009: Extending Comment Period from 03/19/2010 to 05/03/2010.

EIS No. 20100077, Final EIS, USFWS, NV, Southeastern Lincoln County Habitat Conservation Plan, Application Package for Three Incidental Take Permits, Authorize the Take of Desert Tortoise (Gopherus agassizii) and Southwestern Williow Flycatcher (Empidonax traillii extimus), Implementation, Lincoln County, NV, Wait Period Ends: 04/19/2010, Contact: John Robles, 916–414–6731. Revision FR Notice Published 03/19/2010: Correction to Comment Due Date from 05/03/2010 to 04/19/2010.

EIS No. 20100079, Revised Draft EIS, FRA, SC, VOID-Bay Area to Central Valley High-Speed Train (HST) Project, Additional Information and Analysis Needed for Compliance with the Court Judgement, Provide a Reliable High-Speed Electrified Train System to Link Bay Area Cities to the Central Valley, Sacramento, and South California, Comment Period Ends: 05/03/2010, Contact: Dan Leavitt, 916–324–1541. This DEIS was inadvertently filed and published in 03/19/2010 FR. This is a State document which is not required to be filed with EPA.

Dated: March 23, 2010.

Ken Mittelholtz,

Deputy Director, NEPA Compliance Division, Office of Federal Activities.

[FR Doc. 2010–6772 Filed 3–25–10; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

Notice of Public Information Collection Being Reviewed by the Federal Communications Commission for Extension Under Delegated Authority, Comments Requested

March 22, 2010.

SUMMARY: The Federal Communications Commission, as part of its continuing effort to reduce paperwork burden invites the general public and other Federal agencies to take this opportunity to comment on the following information collection, as required by the Paperwork Reduction Act of 1995, 44 U.S.C. 3501–3520. Comments are requested concerning: (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimate; (c) ways to enhance the quality, utility, and clarity of the information collected; (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology, and (e) ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

The FCC may not conduct or sponsor a collection of information unless it displays a currently valid OMB control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the Paperwork Reduction Act (PRA) that does not display a currently valid OMB control number.

DATES: Persons wishing to comments on this information collection should submit comments on or before May 25, 2010. If you anticipate that you will be submitting comments, but find it difficult to do so within the period of time allowed by this notice, you should advise the contact listed below as soon as possible.

ADDRESSES: Direct all PRA comments to Nicholas A. Fraser, Office of Management and Budget (OMB), via fax at (202) 395–5167, or via the Internet at Nicholas_A._Fraser@omb.eop.gov and to Judith B. Herman, Federal Communications Commission (FCC). To submit your PRA comments by e–mail send them to: PRA@fcc.gov.

FOR FURTHER INFORMATION CONTACT: Judith B. Herman, Office of Managing Director, (202) 418–0214. For additional information about the information collection(s) send an e–mail to PRA@fcc.gov or contact Judith B. Herman, 202–418–0214.

SUPPLEMENTARY INFORMATION:

OMB Control No: 3060–0355.

Title: Rate–of–Return Reports.

Form Nos.: FCC Forms 492 and 492–A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for–profit.

Number of Respondents: 80 respondents; 80 responses.

Estimated Time Per Response: 8 hours.

Frequency of Response: Annual reporting and recordkeeping requirements.

Obligation to Respond: Mandatory. Statutory authority for this collection of information is contained in 47 U.S.C. sections 160, 161, 209(b), and 220.

Total Annual Burden: 640 hours.

Total Annual Cost: N/A.

Privacy Act Impact Assessment: N/A.

Nature and Extent of Confidentiality: The Commission does not require respondents to submit confidential materials. However, if the respondents wish to submit materials they believe is confidential, they may do so under 47 CFR 0.459 of the Commission's rules.

Need and Uses: The Commission will submit this expiring information collection to the Office of Management and Budget (OMB) after this 60 day comment period in order to obtain the full three year clearance from them. There is no change in the reporting and/or recordkeeping requirements. There is a 288 hour adjustment reduction which is due to fewer respondents (from 111 to 80 respondents) subject to the requirements.

FCC Form 492 is filed by each local exchange carrier (LEC) or groups of carriers who file individual access tariffs or who are not subject to Sections 61.41 through 61.49 of the Commission's rules. Each LEC, or group of affiliated carriers, subject to the

previously stated sections, file FCC Form 492–A. This data provides the necessary detail to enable the Commission to fulfill its regulatory responsibilities.

In the April 24, 2008 Memorandum Opinion and Order (MO&O) (ARMIS Forbearance Order), the Commission granted conditional forbearance for all AT&T affiliates, including BellSouth affiliates, to file FCC Form 492 subject to Commission approval of AT&T's compliance plan, among other things. See Petition of AT&T Inc. For Forbearance Under 47 U.S.C. § 160 From Enforcement of the Commission's Cost Assignment Rules; Petition of BellSouth Telecommunications, Inc. For Forbearance Under 47 U.S.C. § 160 From Enforcement of Certain of the Commission's Cost Assignment Rules, WC Docket Nos. 07–21, 05–342, Memorandum Opinion and Order, 23 FCC Rcd 7302 (2008) (AT&T Cost Assignment Forbearance Order), pet. for recon. Pending, pet. for review pending, NASCUA v. FCC Case No. 08–1226 (D.C. Cir. Filed June 23, 2008).

On September 6, 2008, the Commission extended the same relief, subject to the same conditions, to Verizon and Qwest. See Service Quality, Customer Satisfaction, Infrastructure and Operating Data Gathering, WC Docket Nos. 08–190, 07–139, 07–204, 07–273, 07–21, Memorandum Opinion and Order and Notice of Proposed Rulemaking, 23 FCC Rcd 13647 (2008), (Verizon/Qwest cost Assignment Forbearance Order), pet. for recon. Petition for review pending, NASCUA v. FCC, Case No. 08–1226 (D.C. Cir. Filed June 23, 2008). The Commission also issued a Memorandum Opinion and Order granting forbearance for Qwest and Verizon from filing FCC Form 492, among other things, subject to Commission approval of Qwest's and Verizon's compliance plan. See Petition of Qwest for Forbearance From Enforcement of the Commission's ARMIS and 492–A Reporting Requirements Pursuant to 47 U.S.C. § 160(c) From Enforcement of Certain of the Commission's Recordkeeping and Reporting Requirements, WC Docket Nos. 07–204, 07–273, Memorandum Opinion and Order, FCC 08–271 (Dec. 12, 2008) (ARMIS Financial Reporting Forbearance Order).

On December 31, 2008, the Wireline Competition Bureau issued a Public Notice that found AT&T, Verizon and Qwest had satisfied the condition that they obtain Bureau approval of their compliance plan describing in detail how they will continue to fulfill its statutory and regulatory obligations.

Federal Communications Commission.

Bulah P. Wheeler,

Acting Associate Secretary,

Office of the Secretary,

Office of Managing Director.

[FR Doc. 2010–6753 Filed 3–25–10; 8:45 am]

BILLING CODE 6712–01–S

FEDERAL MINE SAFETY AND HEALTH REVIEW COMMISSION

Sunshine Act; Meeting

March 18, 2010.

TIME AND DATE: 10 a.m., Wednesday, April 7, 2010.

PLACE: The Richard V. Backley Hearing Room, 9th Floor, 601 New Jersey Avenue, NW., Washington, DC.

STATUS: Open.

MATTERS TO BE CONSIDERED: The Commission will consider and act upon the following in open session: *Secretary of Labor* v. *Eastern Associated Coal Corporation,* Docket No. WEVA 2007–335. (Issues include whether certain violations of roof control requirements constituted an "unwarrantable failure to comply.")

Any person attending this meeting who requires special accessibility features and/or auxiliary aids, such as sign language interpreters, must inform the Commission in advance of those needs. Subject to 29 CFR 2706.150(a)(3) and 2706.160(d).

CONTACT PERSON FOR MORE INFO: Jean Ellen (202) 434–9950/(202) 708–9300 for TDD Relay/1–800–877–8339 for toll free.

Jean H. Ellen,

Chief Docket Clerk.

[FR Doc. 2010–6891 Filed 3–24–10; 4:15 pm]

BILLING CODE 6735–01–P

FEDERAL RESERVE SYSTEM

Change in Bank Control Notices; Acquisition of Shares of Bank or Bank Holding Companies

The notificants listed below have applied under the Change in Bank Control Act (12 U.S.C. 1817(j)) and § 225.41 of the Board's Regulation Y (12 CFR 225.41) to acquire a bank or bank holding company. The factors that are considered in acting on the notices are set forth in paragraph 7 of the Act (12 U.S.C. 1817(j)(7)).

The notices are available for immediate inspection at the Federal Reserve Bank indicated. The notices also will be available for inspection at the office of the Board of Governors. Interested persons may express their views in writing to the Reserve Bank indicated for that notice or to the offices of the Board of Governors. Comments must be received not later than April 12, 2010.

A. Federal Reserve Bank of Minneapolis (Jacqueline G. King, Community Affairs Officer) 90 Hennepin Avenue, Minneapolis, Minnesota 55480–0291:

1. Vivian Y. Miller Revocable Trust, Roseau, Minnesota; Vivian Y. Miller, Naples, Florida, as trustee of the Vivian Y. Miller Revocable Trust; the Michael J. Miller Trust, Roseau, Minnesota; Jon L. Miller, Naples, Florida, individually and as trustee of the Vivian Y. Miller Revocable Trust and the Michael J. Miller Trust; the William I. Hagen Revocable Trust, Roseau, Minnesota; William I. Hagen, Warroad, Minnesota, individually and as trustee of the William I. Hagen Revocable Trust; William M. Hagen, Salol, Minnesota; Lori Ann Minard, Bozeman, Montana; Melissa L. Tedford, Fargo, North Dakota; Neal L. Broten, River Falls, Wisconsin; Sally T. Broten, River Falls, Wisconsin; Susan L. Miller, Minneapolis, Minnesota; and Brian J. MacLellan, Minneapolis, Minnesota, as a group acting in concert to acquire additional voting shares of Border Bancshares, Inc., and thereby indirectly acquire additional voting shares of Border State Bank, both of Greenbush, Minnesota.

2. Dennis and Terri Brazier, Greenbush, Minnesota, to acquire voting shares of Border Bancshares, Inc., and thereby indirectly acquire voting shares of Border State Bank, both of Greenbush, Minnesota.

Board of Governors of the Federal Reserve System, March 23, 2010.

Robert deV. Frierson,

Deputy Secretary of the Board.

[FR Doc. 2010–6732 Filed 3–25–10; 8:45 am]

BILLING CODE 6210–01–S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

Family Violence Prevention and Services/Grants for Domestic Violence Shelters/Grants to Native American Tribes (Including Alaska Native Villages) and Tribal Organizations

Program Office: Administration on Children, Youth and Families (ACYF), Family and Youth Services Bureau (FYSB).

Program Announcement Number: HHS–2010–ACF–ACYF–FVPS–0015.

Announcement Title: Family Violence Prevention and Services/Grants for Domestic Violence Shelters/Grants to Native American Tribes (including Alaska Native Villages) and Tribal Organizations.

CFDA Number: 93.671.

Due Date for Applications: April 15, 2010.

This announcement was originally published on March 16, 2010 on the Administration for Children and Families' (ACF) Funding Opportunities Web site and may be accessed in a pdf format at *http://www.acf.hhs.gov/grants/open/foa/view/hhs-2010-acf-acyf-fvps-0015.*

Executive Summary: This announcement governs the proposed award of formula grants under the Family Violence Prevention and Services Act (FVPSA) to Native American Tribes (including Alaska Native Villages) and Tribal organizations. The purpose of these grants is to assist Tribes in establishing, maintaining, and expanding programs and projects to prevent family violence and to provide immediate shelter and related assistance for victims of family violence and their dependents (42 U.S.C. 10401).

This announcement sets forth the application requirements, the application process, and other administrative and fiscal requirements for grants in Fiscal Year (FY) 2010. Grantees are to be mindful that although the expenditure period for grants is a two-year period, an application is required every year to provide continuity in the provision of services. (See *Section II. Award Information, Expenditure Periods.*)

I. Description

Legislative Authority: Fiscal Year 2010 grant awards are authorized by the Family Violence Prevention and Services Act, 42 U.S.C. 10401 through 10421 (extended by the Department of Health and Human Services Appropriations Act, 2010, Public Law 111–117, and/or any subsequent pertinent legal authorities).

Background

The purpose of this legislation is to assist Tribes, Tribal organizations, nonprofit private organizations approved by Tribes and States in supporting the establishment, maintenance, and expansion of programs and projects to prevent incidents of family violence and to provide immediate shelter and related assistance for victims of family violence and their dependents. Tribes face unique circumstances and obstacles when responding to family violence. The particular legal relationship of the United States to Indian Tribes creates a Federal trust responsibility to assist Tribal governments in safeguarding the lives of Indian victims of family violence.

During FY 2009, the Department of Health and Human Services (HHS) made 193 grants to States and Tribes or Tribal organizations. HHS also made 53 family violence grant awards to non-profit State Domestic Violence Coalitions. In addition, HHS supports the Sacred Circle, National Resource Center to End Violence Against Native Women.

General Grant Program Requirements for Tribes or Tribal Organizations

Client Confidentiality

FVPSA programs must establish or implement policies and protocols for maintaining the safety and confidentiality of the adult victims of domestic violence and their children whom they serve. It is essential that the confidentiality of individuals receiving FVPSA services be protected.

Consequently, when providing statistical data on program activities and program services, individual identifiers of client records will not be used by Tribes, Tribal organizations, the State, or other FVPSA grantees or subgrantees. The address or location of any FVPSA-funded shelter facility will, except with written authorization of the person or persons responsible for the operation of such shelter, not be made public and the confidentiality of records pertaining to any individual provided family violence prevention and treatment services by any FVPSA-funded program will be strictly maintained (42 U.S.C. 10402(a)(2)(E)).

Confidentiality requirements have been strengthened and clarified with the passage of the Violence Against Women and Department of Justice Reauthorization Act of 2005 (Pub. L. 109–162). In the interest of establishing a consistent Federal standard for domestic violence programs, HHS follows the confidentiality provisions and definition of "personally identifying information" in sections 40002(b)(2) and 40002(a)(18) of the Violence Against Women Act (VAWA) of 1994 (42 U.S.C. 13925(b)(2) and 42 U.S.C. 13925(a)(18)) as a more detailed guidance for grantees about how to comply with the FVPSA confidentiality obligations, and requires FVPSA-funded programs to comply with the VAWA confidentiality provisions.

No personally identifying client-level data may be shared with a third party, regardless of encryption, hashing or other data security measures, without first obtaining a written, reasonably time-limited consent to release as described in section 40002(b)(2) of the Violence Against Women Act of 1994. A client's consent to the release of personal information must also be informed, which includes the client's receipt of information about the possible risks of releasing information to the third party in question. Additionally, all consents must be voluntary and cannot be or appear to be a precondition for receiving services.

FYSB further requires that grantees only collect unduplicated data for each program. The count should be within a single program only. FYSB acknowledges the count will be duplicated across programs statewide. Grantees may share aggregate data and non-identifying demographic information.

The Importance of Coordinated, Accessible Services

The impacts of family violence may include physical injury and death of primary or secondary victims, psychological trauma, isolation from family and friends, harm to children living with a parent or caretaker who is either experiencing or perpetrating family violence, increased fear, reduced mobility, damaged credit, employment and financial instability, homelessness, substance abuse, chronic illnesses, and a host of other health and related mental health consequences. The physical and cultural obstacles existing in much of Tribal communities compound the basic dynamics of family violence. Barriers such as the isolation of vast rural areas, the concern for safety in isolated settings, lack of housing and shelter options, and the transportation requirements over long distances heighten the need for the coordination of the services through an often limited delivery system.

To help bring about a more effective response to the problem of family violence, HHS urges Tribes and Tribal organizations receiving funds under this grant announcement to coordinate activities funded under this grant with other new and existing resources for the prevention of family violence and related issues.

To serve victims most in need and to comply with Federal law, programs and activities funded in whole or in part with FVPSA funds must not discriminate on the basis of age, handicap, sex, race, color, national origin or religion (See 42 U.S.C. 10406). The HHS Office for Civil Rights provides guidance to grantees in

complying with these nondiscrimination requirements. Moreover, in addition to being widely accessible, all assistance must be provided on a voluntary basis; receipt of shelter or housing must not be conditioned on participation in supportive services.

Annual Tribal Grantee Meeting

At least one FVPSA grant administrator per Tribal organization should expect to attend the annual Tribal Grantee Meeting. Subsequent correspondence will advise the Tribal FVPSA Administrators of the date, time, and location of the grantee meeting.

Definitions

Tribes and Tribal organizations should use the following definitions in carrying out their programs. The definitions are found in 42 U.S.C. 10421.

Family Violence: Any act, or threatened act, of violence, including any forceful detention of an individual, which (a) results or threatens to result in physical injury and (b) is committed by a person against another individual (including an elderly person) to whom such person is, or was, related by blood or marriage, or otherwise legally related, or with whom such person is, or was, lawfully residing.

Indian Tribe: "Indian Tribe" means any Indian Tribe, band, nation, or other organized group or community, including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act (43 U.S.C. 1601 *et seq.*), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians (25 U.S.C. 450b(e)).

Tribal Organization: "Tribal Organization" means the recognized governing body of any Indian Tribe; any legally established organization of Indians which is controlled, sanctioned, or chartered by such governing body or which is democratically elected by the adult members of the Indian community to be served by such organization and which includes the maximum participation of Indians in all phases of its activities. In any case where a contract is let or grant made to an organization to perform services benefiting more than one Indian Tribe, the approval of each such Indian Tribe shall be a prerequisite to the letting or making of such contract or grant (25 U.S.C. 450b(l)).

Shelter: The provision of temporary refuge and related assistance in compliance with applicable State law and regulation governing the provision, on a regular basis, of shelter, safe homes, meals, and related assistance to victims of family violence and their dependents.

Related assistance: The provision of direct assistance to victims of family violence and their dependents for the purpose of preventing further violence, helping such victims to gain access to civil and criminal courts and other community services, facilitating the efforts of such victims to make decisions concerning their lives in the interest of safety, and assisting such victims in healing from the effects of the violence. Related assistance includes:

(1) Prevention services such as outreach and prevention services for victims and their children, assistance to children who witness domestic violence, employment training, parenting, and other educational services for victims and their children, preventive health services within domestic violence programs (including services promoting nutrition, disease prevention, exercise, and prevention of substance abuse), domestic violence prevention programs for school-age children, family violence public awareness campaigns, and violence prevention counseling services to abusers;

(2) Counseling with respect to family violence, counseling or other supportive services by peers individually or in groups, and referral to community social services;

(3) Transportation, technical assistance with respect to obtaining financial assistance under Federal and State programs, and referrals for appropriate health care services (including alcohol and drug abuse treatment), but shall not include reimbursement for any health care services;

(4) Legal advocacy to provide victims with information and assistance through the civil and criminal courts, and legal assistance; or

(5) Children's counseling and support services, child care services for children who are victims of family violence or the dependents of such victims, and children who witness domestic violence.

II. Funds Available

Subject to the availability of Federal appropriations and as authorized by law, in FY 2010, HHS will make available to Tribes and Tribal organizations grant funds as described in this announcement. In separate announcements, HHS will make available funds to States for providing immediate shelter and related assistance to victims of family violence and their dependents and funds for State Domestic Violence Coalitions to continue their work within the domestic violence community by providing technical assistance and training, advocacy services, and other activities. These announcements are available at 74 FR 15273 (States—*http://www.acf.hhs.gov/grants/closed/HHS–2009–ACF–ACYF–FVPS–0035.html*) and at 74 FR 15387 (Coalitions—*http://www.acf.hhs.gov/grants/closed/HHS–2009–ACF–ACYF–SDVC–0030.html*). The FVPSA expired on September 30, 2008. Its reauthorization could introduce new statutory or administrative requirements impacting grantees.

Tribal Allocations

In computing Tribal allocations, FYSB will use the latest available population figures from the Census Bureau. The latest Census population counts may be viewed at *http://*www.census.gov. Where Census Bureau data are unavailable, FYSB will use figures from the Bureau of Indian Affairs' (BIA's) Indian Population and Labor Force Report, which is available at *http://www.bia.gov/WhatWeDo/Knowledge/Reports/index.htm.* The funding formula for the allocation of family violence funds is based upon the Tribe's population. The formula has two parts, the Tribal population base allocation and a population category allocation.

The base allocations are determined by a Tribe's population and a funds allocation schedule. Tribes with populations between 1,500 to 50,000 people receive a $2,500 base allocation for the first 1,500 people. For each additional 1,000 people above the 1,500 person minimum, a Tribe's base allocation is increased $1,000. Tribes with populations between 50,001 to 100,000 people receive base allocations of $125,000 and Tribes with a population of 100,001 to 150,000 receive a base allocation of $175,000.

Once the minimum amounts have been distributed to the Tribes that have applied for FVPSA funding, the ratio of the Tribal population category to the total of all base allocations is then considered in allocating the remainder of the funds. By establishing base amounts with distribution of proportional amounts for larger Tribes, FYSB is balancing the need for basic services for all Tribes with the greater demand for services among Tribes with larger populations. In FY 2009, actual grant awards ranged from $26,592 to $2,326,834.

Tribes are encouraged to apply for FVPSA funding as a consortium. Tribal

consortia consist of groups of Tribes who agree to apply for and administer a single FVPSA grant with one Tribe or Tribal organization responsible for grant administration. In a Tribal consortium, the population of the Tribal Trust Land for all of the Tribes involved will be used to calculate the award amount. The allocations for each of the Tribes included in the consortium will be combined to determine the total grant for the consortium.

Expenditure Periods

The project period under this program announcement is 24 months. The FVPSA funds may be used for expenditures on and after October 1 of each fiscal year for which they are granted, and will be available for expenditure through September 30 of the following fiscal year; i.e., FY 2010 funds may be used for expenditures from October 1, 2009, through September 30, 2011. For example:

Award year (Federal fiscal year (FY))	Project period (24 Months)	Application requirements and expenditure periods
FY 2010	10/01/2009—9/30/2011	Regardless of the date the award is received, these funds may be expended by the grantee for obligations incurred since October 1, 2009. The funds may be expended through September 30, 2011.
FY 2011	10/01/2010—9/30/2012	Regardless of the date the award is received, these funds may be expended by the grantee for obligations incurred since October 1, 2010. The funds may be expended through September 30, 2012.

Re-allotted funds, if any, are available for expenditure until the end of the fiscal year following the fiscal year that the funds became available for re-allotment. FY 2010 grant funds that are made available to Tribes and Tribal organizations through re-allotment must be expended by the grantee no later than September 30, 2011.

III. Eligibility

Tribes and Tribal organizations are eligible for funding under this program if they meet the definition of "Indian Tribe" or "Tribal organization" set forth in section 450B of Title 25 and if they are able to demonstrate their capacity to carry out a family violence prevention and services program. Any Tribe or Tribal organization that believes it meets the eligibility criteria and should be included in the list of eligible Tribes, should provide supportive documentation and a request for inclusion in its application. (See Content of Application Submission in Section IV. of this announcement.) Tribes may apply singularly or as a consortium. In addition, a non-profit private organization or Tribal organization, approved by a Tribe for the operation of a family violence shelter or program on a reservation is eligible for funding.

Additional Information on Eligibility

D-U-N-S Requirement

All applicants must have a D&B Data Universal Numbering System (D-U-N-S) number. A D-U-N-S number is required whether an applicant is submitting a paper application or using the Government-wide electronic portal, Grants.gov. A D-U-N-S number is required for every application for a new award or renewal/continuation of an award, including applications or plans under formula, entitlement, and block grant programs. A D-U-N-S number may be acquired at no cost online at *http://www.dnb.com*. To acquire a D-U-N-S and U.S. Virgin Islands: 1–866–705–5711; Alaska and Puerto Rico: 1–800–234–3867 (Select Option 2, then Option 1) Monday–Friday 7 AM to 8 PM C.S.T.

IV. Application Requirements for Tribes and Tribal Organizations

Content of Application Submission

The application from the Tribe or Tribal organization must be signed by the Chief Executive Officer or Tribal Chairperson of the applicant organization.

The cover letter of the application should include the following information:

(1) The name of the Tribe or Tribal organization applying for the FVPSA grant and the mailing address.

(2) The name of the Chief Program Official designated as responsible for administering funds under FVPSA, and the telephone number, fax number, and if available, an e-mail address.

(3) The name of the program person designated to administer coordination of the related programs, and the telephone number, fax number, and if available, an e-mail address.

(4) The Employee Identification Number (EIN) of the applicant organization submitting the application.

(5) The D-U-N-S number of the applicant organization submitting the application. See preceding D-U-N-S Requirement section for additional information.

The content of the application should include the following:

(1) A copy of a current Tribal resolution or an equivalent document that verifies Tribal approval of the application being submitted. The resolution or other document should, at minimum, cover the entirety of FY 2010 and should state that the designated organization or agency has the authority to submit an application on behalf of the individuals in the Tribe(s) and to administer programs and activities funded pursuant to 42 U.S.C. 10402(b)(2)). A Tribe may also opt to include in its resolution or equivalent document an extended approval period of up to four years, or through fiscal year 2013.

Note: An applicant that received no funding in the immediately preceding fiscal year must submit a new Tribal resolution or its equivalent. An applicant funded as part of a consortium in the immediately preceding year that is now seeking funds as a single Tribe must also submit a new resolution or its equivalent. Likewise, an applicant funded as a single Tribe in the immediately preceding fiscal year that is now seeking funding as a part of a consortium must submit a new resolution or its equivalent.

(2) A description of the procedures designed to involve knowledgeable individuals and interested organizations in providing services under FVPSA (42 U.S.C. 10402(b)(2)). For example, knowledgeable individuals and interested organizations may include: Tribal officials or social services staff involved in child abuse or family violence prevention, Tribal law enforcement officials, representatives of State or Tribal Domestic Violence Coalitions, and operators of domestic violence shelters and service programs.

(3) A description of the applicant's operation of and/or capacity to carry out a family violence prevention and services program. This might be demonstrated in ways such as the following:

(a) The current operation of a shelter, safe house, or family violence prevention program;

(b) The establishment of joint or collaborative service agreements with a local public agency or a private non-profit agency for the operation of family violence prevention activities or services; or

(c) The operation of social services programs as evidenced by receipt of BIA contracts awarded under Public Law 93–638; Title II Indian Child Welfare grants from BIA; Child Welfare Services grants under Title IV–B of the Social Security Act; or Family Preservation and Family Support grants under Title IV–B of the Social Security Act.

(4) A description of the services to be provided, how the applicant organization plans to use the grant funds to provide the direct services, to whom the services will be provided, and the expected results of the services.

(5) Documentation of the policies and procedures developed and implemented, including copies of the policies and procedures, to ensure that individual identifiers of client records will not be used when providing statistical data on program activities and program services and that the confidentiality of records pertaining to any individual provided domestic violence prevention or treatment services by any FVPSA-supported program will be strictly maintained (42 U.S.C. 10402(a)(2)(E)).

(6) Documentation of the law or procedure which has been implemented for the eviction of an abusing spouse from a shared household (42 U.S.C. 10402(a)(F)).

(**Note:** As required by the Paperwork Reduction Act of 1995, Pub. L. 104–13, the public reporting burden for the project description is estimated to average 10-hours-per-response, including the time for reviewing instructions, gathering and maintaining the data needed, and reviewing the collection information. The Project Description information collection is approved under OMB control number 0970–0280, which expires on December 31, 2011. 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.)

Assurances (See Attachment A)

Each application must provide the assurances in Attachment A. The assurances may be included in the body of the narrative application or Attachment A may be printed, signed, and included in the application as an attachment.

Certifications

All applications must submit or comply with the required certifications found in Attachments B, C, and D as follows:

Anti-Lobbying Certification and Disclosure Form (See Attachment B): Applicants Should Sign and Return the Certification With Their Application

Certification Regarding Environmental Tobacco Smoke (See Attachment C): By signing and submitting the application, applicants are accepting and agreeing to all terms and conditions of the certification.

Certification Regarding Drug-Free Workplace Requirements (See Attachment D): By signing and submitting the application, applicants are accepting and agreeing to all terms and conditions of the certification.

These certifications can also be found at *http://www.acf.hhs.gov/programs/ofs/forms.htm.*

Notification Under Executive Order 12372

The review and comment provisions of the Executive Order (E.O.) and Part 100 do not apply. Federally recognized Tribes are exempt from all provisions and requirements of E.O. 12372.

Applications should be sent to: Family Violence Prevention and Services Program, Family and Youth Services Bureau, Administration on Children, Youth and Families, Administration for Children and Families, Attention: Shena Williams, 1250 Maryland Avenue, SW., Suite 8213, Washington, DC 20024.

V. Approval/Disapproval of a Tribal or Tribal Organization Application

The Secretary of HHS will approve any application that meets the requirements of FVPSA and this announcement. The Secretary will not disapprove an application except after reasonable notice of the Secretary's intention to disapprove has been provided to the applicant and after a six-month period providing an opportunity for applicant to correct any deficiencies. The notice of intention to disapprove will be provided to the applicant within 45 days of the date of the application.

VI. Reporting Requirements

Performance Reports

ACF grantees must submit Performance Progress Reports using a standardized format, the SF–PPR. The SF–PPR is the standard Government-wide performance progress reporting format used by Federal agencies to collect performance information from recipients. A version of the SF–PPR has been tailored for grantees under this announcement as the ACYF–FYSB–FVPS–SF–PPR. A Program Performance Report must be filed with HHS describing the activities carried out, and include an assessment of the effectiveness of those activities in achieving the purposes of the grant. A section of this performance report must be completed by each grantee or sub-grantee that performed the direct services contemplated in the application certifying performance of such services. Consortia grantees should compile performance reports into a comprehensive report for submission. A copy of the ACYF–FYSB–FVPS–SF–PPR is available on the Family and Youth Services Bureau Web site at *http://www.acf.hhs.gov/programs/fysb/content/forms/reportforms/fv/ACF_FYSB_FVPSA_Tribal_SF_PPR_v1_0.pdf.*

Performance reports for Tribes and Tribal organizations are due on an annual basis at the end of the calendar year (December 29). Performance reports should be sent to: Family Violence Prevention and Services Program, Family and Youth Services Bureau, Administration on Children, Youth and Families, Administration for Children and Families, Attention: Shena Williams, 1250 Maryland Avenue, SW., Room 8213, Washington, DC 20024 .

Financial Status Reports

Grantees must submit annual Financial Status Reports. The first SF–269A for funding under this announcement, which is due December 29, 2010, is based on the Federal FY and will cover October 1, 2009, through September 30, 2010. The final SF–269A for funding under this announcement, which is due December 29, 2011, will cover October 1, 2010, through September 30, 2011. The SF 269A can be found at *http://www.whitehouse.gov/omb/assets/omb/grants/sf269.pdf.*

Completed reports may be mailed to: Kalika France, Division of Mandatory Grants, Office of Grants Management, Administration for Children and Families, 370 L'Enfant Promenade, SW., 6th Floor, Washington, DC 20447.

Grantees are encouraged to submit their reports online through the Online Data Collection (OLDC) system at the following address: *https://extranet.acf.hhs.gov/ssi/.*

Failure to submit reports on time may be a basis for withholding grant funds, suspension, or termination of the grant. In addition, all funds reported after the obligation period will be recouped.

VII. Administrative and National Policy Requirements

Grantees are subject to the requirements in 45 CFR part 74 (non-Governmental) or 45 CFR part 92 (Governmental).

Direct Federal grants, sub-award funds, or contracts under this ACF program shall not be used to support inherently religious activities such as religious instruction, worship, or proselytization. Therefore, organizations must take steps to separate, in time or location, their inherently religious activities from the services funded under this program. Regulations pertaining to the Equal Treatment for Faith-Based Organizations, which includes the prohibition against Federal funding of inherently religious activities, can be found at the HHS Web site at *http://www.hhs.gov/fbci/waisgate21.pdf.*

VIII. Other Information

For Further Information Contact: Shena Williams at (202) 205–5932 or e-mail at *shena.williams@acf.hhs.gov.*

Dated: March 19, 2010.

Bryan Samuels,

Commissioner, Administration on Children, Youth and Families.

Attachments: Required Assurances and Certifications:

A. Assurances
B. Certification Regarding Lobbying
C. Certification Regarding Environmental Tobacco Smoke
D. Drug-Free Workplace Requirements

Attachment A—Assurances Of Compliance With Grant Requirements

The grantee certifies that it will comply with the following:

(1) Not less than 70 percent of the funds distributed shall be used for immediate shelter and related assistance, as defined in 42 U.S.C. 10421(4) and (5), to victims of family violence and their dependents and not less than 25 percent of the funds distributed shall be used to provide related assistance as defined in 42 U.S.C. 10421(5) (42 U.S.C. 10402(g)).

(2) Grant funds made available under FVPSA will not be used as direct payment to any victim or dependent of a victim of family violence (42 U.S.C. 10402(d)).

(3) No income eligibility standard will be imposed on individuals receiving assistance or services supported with funds appropriated to carry out FVPSA (42 U.S.C. 10402(e)).

(4) The address or location of any shelter or facility assisted under FVPSA will not be made public, except with the written authorization of the person or persons responsible for the operations of such shelter (42 U.S.C. 10402(a)(2)(E)).

(5) The applicant will comply with FVPSA confidentiality requirements and must provide assurances that individual identifiers of client records will not be used when providing statistical data on program activities and program services and that the confidentiality of records pertaining to any individual provided domestic violence prevention or treatment services by any FVPSA-supported program will be strictly maintained (42 U.S.C. 10402(a)(2)(E)).

(6) That a law or procedure, such as a process for obtaining an order of protection, has been implemented for the eviction of an abusing spouse from a shared household (42 U.S.C. 10402(a)(2)(F)).

(7) That all grants, programs or other activities funded by the State in whole or in part with funds made available under FVPSA will prohibit discrimination on the basis of age, handicap, sex, race, color, national origin or religion (42 U.S.C. 10406).

(8) That the applicant will comply with the applicable Departmental recordkeeping and reporting requirements and general requirements for the administration of grants under 45 CFR Part 92.

Chief Program Official

Title

Organization

Attachment B—Certification Regarding Lobbying

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, Title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Signature

Title

Organization

Attachment C—Certification Regarding Environmental Tobacco Smoke

The Pro-Children Act of 2001, 20 U.S.C. 7181 through 7184, imposes restrictions on smoking in facilities where Federally funded children's services are provided. HHS grants are subject to these requirements only if they meet the Act's specified coverage. The Act specifies that smoking is prohibited in any indoor facility (owned, leased, or contracted for) used for the routine or regular provision of kindergarten, elementary, or secondary education or library services to children under the age of 18. In addition, smoking is prohibited in any indoor facility or portion of a facility (owned, leased, or contracted for) used for the routine or regular provision of federally funded health care, day care, or early childhood development, including Head Start services to children under the age of 18. The statutory prohibition also applies if such facilities are constructed, operated, or maintained with Federal funds. The statute does not apply to children's services provided in private residences, facilities funded solely by Medicare or Medicaid funds, portions of facilities used for inpatient drug or alcohol treatment, or facilities where WIC coupons are redeemed. Failure to comply with the provisions of the law may result in the imposition of a civil monetary penalty of up to $1,000 per violation and/or the imposition of an administrative compliance order on the responsible entity.

Attachment D—Certification Regarding Drug-Free Workplace Requirements

This certification is required by the regulations implementing the Drug-Free Workplace Act of 1988: 45 CFR Part 76, Subpart, F. Sections 76.630(c) and (d)(2) and 76.645(a)(1) and (b) provide that a Federal agency may designate a central receipt point for state-wide and state agency-wide certifications, and for notification of criminal drug convictions. For the Department of

Health and Human Services, the central point is: Division of Grants Management and Oversight, Office of Management and Acquisition, Department of Health and Human Services, Room 517–D, 200 Independence Avenue, SW Washington, DC 20201.

Certification Regarding Drug-Free Workplace Requirements (Instructions for Certification)

(1) By signing and/or submitting this application or grant agreement, the grantee is providing the certification set out below.

(2) The certification set out below is a material representation of fact upon which reliance is placed when the agency awards the grant. If it is later determined that the grantee knowingly rendered a false certification, or otherwise violates the requirements of the Drug-Free Workplace Act, the agency, in addition to any other remedies available to the Federal Government, may take action authorized under the Drug-Free Workplace Act.

(3) For grantees other than individuals, Alternate I applies.

(4) For grantees who are individuals, Alternate II applies.

(5) Workplaces under grants, for grantees other than individuals, need not be identified on the certification. If known, they may be identified in the grant application. If the grantee does not identify the workplaces at the time of application, or upon award, if there is no application, the grantee must keep the identity of the workplace(s) on file in its office and make the information available for Federal inspection. Failure to identify all known workplaces constitutes a violation of the grantee's drug-free workplace requirements.

(6) Workplace identifications must include the actual address of buildings (or parts of buildings) or other sites where work under the grant takes place. Categorical descriptions may be used (e.g., all vehicles of a mass transit authority or State highway department while in operation, State employees in each local unemployment office, performers in concert halls or radio studios).

(7) If the workplace identified to the agency changes during the performance of the grant, the grantee shall inform the agency of the change(s), if it previously identified the workplaces in question (see paragraph five).

(8) Definitions of terms in the Nonprocurement Suspension and Debarment common rule and Drug-Free Workplace common rule apply to this certification. Grantees' attention is called, in particular, to the following definitions from these rules:

Controlled substance means a controlled substance in Schedules I through V of the Controlled Substances Act (21 U.S.C. 812) and as further defined by regulation (21 CFR 1308.11 through 1308.15);

Conviction means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes;

Criminal drug statute means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, use, or possession of any controlled substance;

Employee means the employee of a grantee directly engaged in the performance of work under a grant, including: (i) All direct charge employees; (ii) All indirect charge employees unless their impact or involvement is insignificant to the performance of the grant; and, (iii) Temporary personnel and consultants who are directly engaged in the performance of work under the grant and who are on the grantee's payroll. This definition does not include workers not on the payroll of the grantee (e.g., volunteers, even if used to meet a matching requirement; consultants or independent contractors not on the grantee's payroll; or employees of subrecipients or subcontractors in covered workplaces).

Certification Regarding Drug-Free Workplace Requirements

Alternate I. (Grantees Other Than Individuals)

The grantee certifies that it will or will continue to provide a drug-free workplace by:

(1) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

(2) Establishing an ongoing drug-free awareness program to inform employees about—

(a) The dangers of drug abuse in the workplace;

(b) The grantee's policy of maintaining a drug-free workplace;

(c) Any available drug counseling, rehabilitation, and employee assistance programs; and

(d) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(3) Making it a requirement that each employee to be engaged in the performance of the grant be given a copy of the statement required by paragraph (a);

(4) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will—

(a) Abide by the terms of the statement; and

(b) Notify the employer in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction;

(5) Notifying the agency in writing, within 10 calendar days after receiving notice under paragraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to every grant officer or other designee on whose grant activity the convicted employee was working, unless the Federal agency has designated a central point for the receipt of such notices. Notice shall include the identification number(s) of each affected grant;

(6) Taking one of the following actions, within 30 calendar days of receiving notice under paragraph (d)(2), with respect to any employee who is so convicted—

(a) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or

(b) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency;

(7) Making a good faith effort to continue to maintain a drug-free workplace through implementation of paragraphs (a), (b), (c), (d), (e) and (f).

The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance (Street address, city, county, state, zip code)

Check if there are workplaces on file that are not identified here.

Alternate II. (Grantees Who Are Individuals)

(1) The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance in conducting any activity with the grant;

(2) If convicted of a criminal drug offense resulting from a violation occurring during the conduct of any grant activity, he or she will report the conviction, in writing, within 10 calendar days of the conviction, to every grant officer or other designee, unless the Federal agency designates a central point for the receipt of such notices. When notice is made to such a central point, it shall include the identification number(s) of each affected grant.

[FR Doc. 2010–6734 Filed 3–25–10; 8:45 am]

BILLING CODE 4184–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2010–D–0143] (formerly Docket No. FDA–2008–D–0128)

Guidance for Industry on Drug-Induced Liver Injury: Premarketing Clinical Evaluation; Opening of Comment Period for Future Revision of Guidance Dated July 2009; Public Conference

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice of opening of comment period; notice of public conference.

SUMMARY: The Food and Drug Administration (FDA) is opening a comment period for submission of suggestions for revising the guidance for industry published in the **Federal**

Register July 30, 2009, entitled "Drug-Induced Liver Injury: Premarketing Clinical Evaluation." In addition, FDA, along with the American Association for the Study of Liver Diseases (AASLD) and the Pharmaceutical and Research Manufacturers of America, is sponsoring a public conference to be held on March 24 and 25, 2010, to discuss and debate issues contained in the published guidance document. The purpose of the conference is to consider the effect of the recommendations in the guidance since its publication, and to seek suggestions for future revisions that will incorporate the views expressed.

DATES: The public conference will be held on March 24, 2010, from 8 a.m. to 6 p.m. and March 25, 2010, from 8 a.m. until 3:15 p.m. Submit written or electronic comments on agency guidances at any time.

ADDRESSES: The conference will take place at the National Labor College, 10000 New Hampshire Ave., Silver Spring MD 20993.

Submit written requests for single copies of the July 2009 guidance to the Division of Drug Information, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 51, rm. 2201, Silver Spring, MD 20993–0002. Send one self-addressed adhesive label to assist that office in processing your requests. Submit written comments on the guidance to the Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. Submit electronic comments to *http://www.regulations.gov*. See the **SUPPLEMENTARY INFORMATION** section for electronic access to the guidance document.

FOR FURTHER INFORMATION CONTACT: Lana L. Pauls, Center for Drug Evaluation and Research, Food and Drug Administration, 10903 New Hampshire Ave., Bldg. 22, rm. 4307, Silver Spring MD 20993–0002, 301–796–0518, e-mail: *lana.pauls@fda.hhs.gov*.

SUPPLEMENTARY INFORMATION:

I. Background

FDA announced in July 2009 the availability of a guidance for industry entitled "Guidance for Industry on Drug-Induced Liver Injury: Premarketing Clinical Evaluation." The guidance explained that drug-induced liver injury (DILI) has been the most frequent cause of acute liver failure in the United States in the last 10 years, exceeding all other causes combined. It discussed methods of detecting DILI by periodic tests of serum enzyme activities and bilirubin concentration elevations, and how those laboratory tests might change over time, along with symptoms and physical findings, to allow estimation of severity of the injury. It suggested some rules for stopping or interrupting drug treatment, and the need to obtain additional clinical information to estimate the likelihood of the true cause. Previous periods for comments on the draft guidance were opened in 2007 and 2008, and those comments were taken into consideration when issuing the final guidance in July 2009. The guidance was issued consistent with FDA's good guidance practices regulation (21 CFR 10.115), representing the agency's current thinking on evidence for DILI in premarketing clinical evaluation. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. An alternative approach may be used if such approach satisfies the requirements of the applicable statutes and regulations.

II. The Public Conference

A. Why Are We Holding This Conference?

The purpose of the 2010 conference is to discuss the most current information and thinking about clinical and basic aspects of the still-unsolved problems of exactly how drugs cause liver injury and why certain individual people are more susceptible than others, combining views of both basic science and clinical experts, and selecting for specific debate and discussion some controversial issues such as:

- Whether indications of cholestasis (biliary tract obstruction) are less important than evidence of primarily hepatocellular injury with secondary functional impairment;
- What findings could lead to interrupting or permanently stopping administration of new drugs under evaluation; and
- The appropriate use of rechallenge testing to study hepatotoxicity.

B. Is There a Fee and How Do I Register for the Conference?

A modest registration fee will be charged to attendees other than invited speakers, to help defray the costs of rental of the meeting spaces, meals and snacks provided, and if possible to cover travel costs incurred by invited academic (but not Government or industry) speakers, and other costs. The fee for the 2-day meeting for industry registrants is $450, and $225 for Federal Government and academic registrants. Registration fees will be waived for invited speakers and moderators.

The registration process will be handled by AASLD, a not-for-profit organization which has extensive experience in planning, organizing, and executing educational meetings.

The presentations and discussions will be recorded and published on the Internet for public availability after minor editing by FDA. It will then be posted on the Internet by AASLD following the meeting, to allow consideration of the issues and material presented by those unable to attend the conference in person.

Additional information on the conference, program, and registration procedures, as well as on past conferences 2001 through 2009, is available on the Internet at *http://www.aasld.org* (go to Conferences and Education, Meetings and Conferences), and also at *http://www.fda.gov* by typing into the search box "liver toxicity." (FDA has verified the AASLD Web site address, but FDA is not responsible for any subsequent changes to the Web site after this document publishes in the **Federal Register**.)

III. Comments

Interested persons may submit to the Division of Dockets Management (see **ADDRESSES**) written or electronic comments regarding the guidance and the issues and questions presented at the conference. Submit a single copy of electronic comments or two paper copies of any mailed comments, except that individuals may submit one paper copy. Comments are to be identified with the docket number found in brackets in the heading of this document. Received comments may be seen in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

IV. Electronic Access

Persons with access to the Internet may obtain the document at either *http://www.fda.gov/Drugs/GuidanceComplianceRegulatoryInformation/Guidances/default.htm* or *http://www.regulations.gov*.

Dated: March 17, 2010.

Leslie Kux,

Acting Assistant Commissioner for Policy.

[FR Doc. 2010–6701 Filed 3–25–10; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2008–D–0623]

Guidance for Industry on Anesthetics for Companion Animals; Availability

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing the availability of Guidance for Industry #192 entitled "Anesthetics for Companion Animals." This guidance makes recommendations for the development of anesthetic new animal drug products for companion animals. The guidance discusses the contents of the target animal safety, effectiveness, and labeling technical sections of a new animal drug application (NADA) for general anesthetics.

DATES: Submit written or electronic comments on agency guidances at any time.

ADDRESSES: Submit written requests for single copies of the guidance to the Communications Staff (HFV–12), Center for Veterinary Medicine, Food and Drug Administration, 7519 Standish Pl., Rockville, MD 20855. Send one self-addressed adhesive label to assist that office in processing your requests.

Submit written comments on the guidance to the Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. Submit electronic comments to *http://www.regulations.gov*. See the **SUPPLEMENTARY INFORMATION** section for electronic access to the guidance document.

FOR FURTHER INFORMATION CONTACT: Germaine Connolly, Center for Veterinary Medicine, (HFV–116), Food and Drug Administration, 7500 Standish Pl., Rockville, MD 20855, 240–276–8331, e-mail: *germaine.connolly@fda.hhs.gov*.

SUPPLEMENTARY INFORMATION:

I. Background

FDA is announcing the availability of a Guidance for Industry #192 entitled "Anesthetics for Companion Animals." This guidance document makes recommendations to assist developers of general anesthetic drugs (injectable or inhalational) for use in companion animals (dogs, cats, and horses). The guidance specifically describes what should be considered while planning and executing safety and field studies for the proposed anesthetic. In addition, the guidance includes recommendations on how to analyze and package the collected data for submission to the Center for Veterinary Medicine (CVM).

In the **Federal Register** of December 17, 2008, (73 FR 76657), FDA published the notice of availability for a draft guidance entitled "Anesthetics for Companion Animals" which gave interested persons until March 2, 2009, to comment on the draft guidance. FDA received a few comments on the draft guidance and those comments were considered as the guidance was finalized. In addition to some of the changes based on the comments received, CVM made a few minor changes to the guidance to add clarity and accuracy. The guidance announced in this notice finalizes the draft guidance dated December 17, 2008.

II. Significance of Guidance

This level 1 guidance is being issued consistent with FDA's good guidance practices regulation (21 CFR 10.115). The guidance represents the agency's current thinking on this topic. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. An alternative approach may be used if such approach satisfies the requirements of the applicable statutes and regulations.

III. Paperwork Reduction Act of 1995

This guidance refers to previously approved collections of information found in FDA regulations. These collections of information are subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). The collections of information have been approved under OMB Control No. 0910–0032 (expiration date 04/30/2010).

IV. Comments

Interested persons may submit to the Division of Dockets Management (see **ADDRESSES**) written or electronic comments regarding this document. Submit a single copy of electronic comments or two paper copies of any mailed comments, except that individuals may submit one paper copy. Comments are to be identified with the docket number found in brackets in the heading of this document. Received comments may be seen in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

V. Electronic Access

Persons with access to the Internet may obtain the guidance at either *http://www.fda.gov/AnimalVeterinary/default.htm* or *http://www.regulations.gov*.

Dated: March 22, 2010.

Leslie Kux,

Acting Assistant Commissioner for Policy.

[FR Doc. 2010–6700 Filed 3–25–10; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Center for Scientific Review; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), 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: Center for Scientific Review Special Emphasis Panel, GWAS of Arthritis, Osteoporosis and Lupus.

Date: March 31, 2010.

Time: 2 p.m. to 4 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892 (Telephone Conference Call).

Contact Person: David J. Remondini, PhD, Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 2210, MSC 7890, Bethesda, MD 20892, 301–435–1038, *remondid@csr.nih.gov*.

This notice is being published less than 15 days prior to the meeting due to the timing limitations imposed by the review and funding cycle.

(Catalogue of Federal Domestic Assistance Program Nos. 93.306, Comparative Medicine; 93.333, Clinical Research, 93.306, 93.333, 93.337, 93.393–93.396, 93.837–93.844, 93.846–93.878, 93.892, 93.893, National Institutes of Health, HHS)

Dated: March 19, 2010.

Jennifer Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 2010–6663 Filed 3–25–10; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Allergy and Infectious Diseases; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute of Allergy and Infectious Diseases Special Emphasis Panel; Non-Human Primate Heart/Lung Transplantation Tolerance.

Date: April 16, 2010.

Time: 9 a.m. to 5 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Rockledge 6700, 6700B Rockledge Drive, Bethesda, MD 20817.

Contact Person: B. Duane Price, PhD, Scientific Review Officer, Scientific Review Program, DHHS/NIH/NIAID, 6700B Rockledge Drive, MSC 7616, Room 3139, Bethesda, MD 20892, 301–451–2592, *pricebd@niaid.nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.855, Allergy, Immunology, and Transplantation Research; 93.856, Microbiology and Infectious Diseases Research, National Institutes of Health, HHS)

Dated: March 19, 2010.

Jennifer Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 2010–6664 Filed 3–25–10; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

Center for Scientific Review; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), 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: Center for Scientific Review Special Emphasis Panel; Medical Imaging Overflow.

Date: March 29, 2010.

Time: 4 p.m. to 6 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, 6701 Rockledge Drive, Bethesda, MD 20892, (Telephone Conference Call)

Contact Person: Xiang-Ning Li, MD, PhD, Scientific Review Officer, Center for Scientific Review, National Institutes of Health, 6701 Rockledge Drive, Room 5112, MSC 7854, Bethesda, MD 20892, 301–435–1744, *lixiang@csr.nih.gov.*

This notice is being published less than 15 days prior to the meeting due to the timing limitations imposed by the review and funding cycle.

(Catalogue of Federal Domestic Assistance Program Nos. 93.306, Comparative Medicine; 93.333, Clinical Research, 93.306, 93.333, 93.337, 93.393–93.396, 93.837–93.844, 93.846–93.878, 93.892, 93.893, National Institutes of Health, HHS)

Dated: March 19, 2010.

Jennifer Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 2010–6671 Filed 3–25–10; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Allergy and Infectious Diseases; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute of Allergy and Infectious Diseases Special Emphasis Panel; R 13 Conference Grants.

Date: April 19–23, 2010.

Time: 8 a.m. to 5 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Rockledge 6700, 6700B Rockledge Drive, Bethesda, MD 20817 (Virtual Meeting).

Contact Person: Michelle M. Timmerman, PhD, Scientific Review Officer, Scientific Review Program, NIH/NIAID/DHHS, Room 3147, 6700B Rockledge Drive, MSC–7616, Bethesda, MD 20892–7616, 301–451–4573, *timmermanm@niaid.nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.855, Allergy, Immunology, and Transplantation Research; 93.856, Microbiology and Infectious Diseases Research, National Institutes of Health, HHS)

Dated: March 18, 2010.

Jennifer Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 2010–6674 Filed 3–25–10; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Diabetes and Digestive and Kidney Diseases; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. App.), notice is hereby given of a meeting of the Board of Scientific Counselors, NIDDK.

The meeting will be closed to the public as indicated below in accordance with the provisions set forth in section 552b(c)(6), Title 5 U.S.C., as amended for the review, discussion, and evaluation of individual intramural programs and projects conducted by the National Institute of Diabetes and Digestive and Kidney Diseases, including consideration of personnel qualifications and performance, and the competence of individual investigators, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: Board of Scientific Counselors, NIDDK.

Date: May 12–14, 2010.

Time: May 12, 2010, 8:15 a.m. to 2:15 p.m.

Agenda: To review and evaluate personal qualifications and performance, and competence of individual investigators.

Place: National Institutes of Health, Building 10, 10 Center Drive, Conference Room 9S235, Bethesda, MD 20892.

Time: May 13, 2010, 8:15 a.m. to 3:05 p.m.

Agenda: To review and evaluate personal qualifications and performance, and competence of individual investigators.

Place: National Institutes of Health, Building 10, 10 Center Drive, Conference Room 9S235, Bethesda, MD 20892.

Time: May 14, 2010, 8:15 a.m. to 3 p.m.

Agenda: To review and evaluate personal qualifications and performance, and competence of individual investigators.

Place: National Institutes of Health, Building 10, 10 Center Drive, Conference Room 9S235, Bethesda, MD 20892.

Contact Person: Ira W. Levin, PhD, Director, Division of Intramural Research, National Institute of Diabetes and Digestive and Kidney Diseases, NIH, Bethesda, MD 20892. 301–496–6844. *iwl@helix.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.

(Catalogue of Federal Domestic Assistance Program Nos. 93.847, Diabetes, Endocrinology and Metabolic Research; 93.848, Digestive Diseases and Nutrition Research; 93.849, Kidney Diseases, Urology and Hematology Research, National Institutes of Health, HHS)

Dated: March 18, 2010.

Jennifer Spaeth,

Director, Office of Federal Advisory Committee Policy.

[FR Doc. 2010–6675 Filed 3–25–10; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

[CMS–1570–N]

Medicare Program; Request for Nominations to the Advisory Panel on Ambulatory Payment Classification Groups

AGENCY: Centers for Medicare & Medicaid Services, Department of Health and Human Services.

ACTION: Notice.

SUMMARY: This notice solicits nominations of five new members to the Advisory Panel on Ambulatory Payment Classification (APC) Groups (the Panel). There will be five vacancies on the Panel as of September 30, 2010.

The purpose of the Panel is to review the APC groups and their associated weights and to advise the Secretary of the Department of Health and Human Services (DHHS) and the Administrator of the Centers for Medicare & Medicaid Services (CMS), concerning the clinical integrity of the APC groups and their associated weights.

The Secretary re-chartered the Panel in 2008 for a 2-year period effective through November 21, 2010.

DATES: *Submission of Nominations:* We will consider nominations if they are received no later than 5 p.m. (e.s.t.), May 26, 2010.

ADDRESSES: Please mail or hand deliver nominations to the following address: Centers for Medicare & Medicaid Services; Attn: Shirl Ackerman-Ross, Designated Federal Official (DFO), Advisory Panel on APC Groups; Center for Medicare Management, Hospital & Ambulatory Policy Group, Division of Outpatient Care; 7500 Security Boulevard, Mail Stop C4–05–17; Baltimore, MD 21244–1850.

Web Site: For additional information on the APC Panel and updates to the Panel's activities, we refer readers to view our website at the following: *http://www.cms.hhs.gov/FACA/05_AdvisoryPanelonAmbulatoryPaymentClassificationGroups.asp#TopOfPage.* (Use control + click the mouse in order to access the previous URL.) (**Note:** There is an underscore after FACA/05_; there is no space.)

FOR FURTHER INFORMATION CONTACT: *Contact:* Persons wishing to nominate individuals to serve on the Panel or to obtain further information may also contact Shirl Ackerman-Ross, the DFO, at *CMS APCPanel@cms.hhs.gov* (**Note:** There is no underscore in this e-mail address; there is a SPACE between CMS and APCPanel.), or e-mail the DFO at SAckermanross@cms.hhs.gov.

Advisory Committees' Information Lines: You may also refer to the CMS Federal Advisory Committee Hotlines at 1–877–449–5659 (toll-free) or 410–786–9379 (local) for additional information.

News Media: Representatives should contact the CMS Press Office at 202–690–6145.

SUPPLEMENTARY INFORMATION:

I. Background

The Secretary is required by section 1833(t)(9)(A) of the Social Security Act (the Act) to consult with an expert outside advisory Panel regarding the clinical integrity of the APC groups and relative payment weights that are components of the Medicare hospital Outpatient Prospective Payment System (OPPS).

The Charter requires that the Panel meet up to three times annually. CMS considers the technical advice provided by the Panel as we prepare the proposed and final rules to update the OPPS for the next calendar year.

The Panel may consist of a chair and up to 15 members who are full-time employees of hospitals, hospital systems, or other Medicare providers that are subject to the OPPS. (For purposes of the Panel, consultants or independent contractors are not considered to be full-time employees in these organizations.)

The current Panel members are as follows: (**Note**: The asterisks [*] indicate the Panel members whose terms end on September 30, 2010.)

- E. L. Hambrick, M.D., J.D., Chair, a CMS Medical Officer
- Ruth L. Bush, M.D., M.P.H.
- Dawn L. Francis, M.D., M.H.S.
- Kathleen M. Graham, R.N., MSHA, CPHQ
- Patrick A. Grusenmeyer, Sc.D., FACHE
- David Halsey, M.D.
- Judith T. Kelly, B.S.H.A., RHIT, RHIA, CCS
- Michael D. Mills, Ph.D.*
- Agatha L. Nolen, D.Ph., M.S., FASHP
- Randall A. Oyer, M.D.
- Beverly Khnie Philip, M.D.*
- Daniel Pothen, M.S., RHIA, CPHIMS, CCS, CCS–P, CHC
- Gregory J. Przbylski, M.D.
- Russ Ranallo, M.S., B.S.*
- Michael A. Ross, M.D., FACEP *
- Patricia Spencer-Cisek, M.S., APRN–BC, AOCN® *

Panel members serve without compensation, according to an advance written agreement. However, for the meetings, CMS reimburses travel, meals, lodging, and related expenses in accordance with standard Government travel regulations.

CMS has a special interest in attempting to ensure, while taking into account the nominee pool, that the Panel is diverse in all respects of the following: Geography; rural or urban practice; race, ethnicity, sex, and disability; medical or technical specialty; and type of hospital, hospital health system, or other Medicare provider subject to the OPPS.

Based upon either self-nominations or nominations submitted by providers or interested organizations, the Secretary, or his or her designee, appoints new members to the Panel from among those candidates determined to have the required expertise. New appointments are made in a manner that ensures a balanced membership under the guidelines of the Federal Advisory Committee Act.

II. Criteria for Nominees

The Panel must be fairly balanced in its membership in terms of the points of view represented and the functions to be performed. The Panel shall consist of up to 15 members who are representatives of providers. Each Panel member must be employed full-time by a hospital, hospital system, or other Medicare provider subject to payment under the OPPS. All members must have technical expertise to enable them to participate fully in the Panel's work. Such expertise encompasses hospital payment systems; hospital medical care delivery systems; provider billing systems; APC groups; Current Procedural Terminology codes; and alpha-numeric Health Care Common Procedure Coding System codes; and the use of, and payment for, drugs and medical devices, as well as other forms of relevant expertise.

It is not necessary for a nominee to possess expertise in all of the areas listed, but each must have a minimum of 5 years experience and currently have full-time employment in his or her area of expertise. Generally, members of the Panel serve overlapping terms of 4 years, based on the needs of the Panel and contingent upon the re-chartering of the Panel.

Any interested person or organization may nominate one or more qualified individuals. Self-nominations will also be accepted. Each nomination must include the following:

- Letter of Nomination,
- Curriculum Vitae of the nominee, and
- Written statement from the nominee that the nominee is willing to serve on the Panel under the conditions described in this notice and further specified in the Charter.

III. Copies of the Charter

To obtain a copy of the Panel's Charter, submit a written request to the DFO at the address provided in the **ADDRESSES** section or by e-mail at *CMS APCPanel@cms.hhs.gov,* or call 410–786–4474.

Copies of the Charter are also available on the Internet at the following: *http://www.cms.hhs.gov/FACA/05_AdvisoryPanelonAmbulatoryPaymentClassificationGroups.asp#TopOfPage.*

IV. Collection of Information Requirements

This document does not impose information collection and recordkeeping requirements. Consequently, it need not be reviewed by the Office of Management and Budget under the authority of the Paperwork Reduction Act of 1995 (44 U.S.C. 35).

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

Dated: March 18, 2010.

Charlene Frizzera,

Acting Administrator, Centers for Medicare & Medicaid Services.

[FR Doc. 2010–6789 Filed 3–25–10; 8:45 am]

BILLING CODE 4120–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Food and Drug Administration

[Docket No. FDA–2010–D–0141]

Small Entity Compliance Guide: Bottled Water: Total Coliform and *E. coli*; Availability

AGENCY: Food and Drug Administration, HHS.

ACTION: Notice.

SUMMARY: The Food and Drug Administration (FDA) is announcing the availability of a guidance for industry entitled "Bottled Water: Total Coliform and *E. coli*—Small Entity Compliance Guide" for a final rule published in the **Federal Register** of May 29, 2009. This small entity compliance guide (SECG) is intended to set forth in plain language the requirements of the regulation and to help small businesses understand the regulation.

DATES: Submit electronic or written comments on the SECG at any time.

ADDRESSES: Submit electronic comments on the SECG to *http://www.regulations.gov.* Submit written comments on the SECG to the Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. Submit written requests for single copies of the SECG to the Division of Plant and Dairy Food Safety (HFS–317), Office of Food Safety, Center for Food Safety and Applied Nutrition, Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, or fax your request to 301–436–2651. Send one self-addressed adhesive label to assist that office in processing your request. See the **SUPPLEMENTARY INFORMATION** section for electronic access to the SECG.

FOR FURTHER INFORMATION CONTACT: Lauren Posnick Robin, Center for Food Safety and Applied Nutrition (HFS–317), Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, 301–436–1639.

SUPPLEMENTARY INFORMATION:

I. Background

In the **Federal Register** of May 29, 2009 (74 FR 25651), FDA issued a final rule amending its bottled water regulations to require that bottled water manufacturers test source water for total coliform, as is required for finished bottled water products, and to require, if any coliform organisms are detected in source water, that bottled water manufacturers determine whether any of the coliform organisms are *Escherichia coli* (*E. coli*), an indicator of fecal contamination. FDA also amended its bottled water regulations to require, if any coliform organisms are detected in finished bottled water products, that bottled water manufacturers determine whether any of the coliform organisms are *E. coli.* FDA also amended the adulteration provision of the bottled water standard to reflect the possibility of adulteration caused by the presence of filth. Under the amended regulations, bottled water containing *E. coli* will be considered adulterated, and source water containing *E. coli* will not be considered to be of a safe, sanitary quality and will be prohibited from use in the production of bottled water. FDA also amended its bottled water regulations to require that, before a bottler can use source water from a source that has tested positive for *E. coli*, the bottler must take appropriate measures to rectify or eliminate the cause of *E. coli* contamination of that source, and that the bottler must keep records of such actions. Existing regulatory provisions require bottled water manufacturers to keep records of new testing required by this rule. The effective date of the final rule is December 1, 2009.

FDA examined the economic implications of the final rule as required by the Regulatory Flexibility Act (5 U.S.C. 601–612). Because the costs per entity of this rule are small, the agency believes that the final rule will not have a significant economic impact on a substantial number of small entities. However, FDA could not certify that the final rule would not have a significant economic impact on a substantial number of small entities. Therefore, in compliance with section 212 of the Small Business Regulatory Enforcement Fairness Act (Public Law 104–121), FDA is making available this SECG stating in plain language the legal requirements of the May 29, 2009, final rule set forth in 21 CFR parts 129 and 165 concerning the monitoring requirements for total coliform and *E. coli* in source water and finished bottled water products, the allowable levels of total coliform and *E.*

coli in finished bottled water products, and requirements for recordkeeping and corrective measures.

FDA is issuing this SECG as level 2 guidance consistent with FDA's good guidance practices regulation (21 CFR 10.115(c)(2)). The SECG represents the agency's current thinking on this topic. It does not create or confer any rights for or on any person and does not operate to bind FDA or the public. An alternative approach may be used if such approach satisfies the requirements of the applicable statutes and regulations.

II. Comments

Interested persons may submit to the Division of Dockets Management (see **ADDRESSES**) electronic or written comments regarding this SECG. Submit a single copy of electronic comments or two paper copies of any mailed comments, except that individuals may submit one paper copy. Comments are to be identified with the docket number found in brackets in the heading of this document. The SECG and received comments may be seen in the Division of Dockets Management between 9 a.m. and 4 p.m., Monday through Friday.

III. Paperwork Reduction Act of 1995

This guidance refers to previously approved collections of information found in FDA regulations. These collections of information are subject to review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). The collections of information in § 129.35(a)(3)(i) and § 129.80(g) and (h) have been approved under OMB control no. 0910–0658.

IV. Electronic Access

Persons with access to the Internet may obtain the document at *http://www.fda.gov/FoodGuidances* or *http://www.regulations.gov*.

Dated: March 22, 2010.

Leslie Kux,

Acting Assistant Commissioner for Policy.

[FR Doc. 2010–6699 Filed 3–25–10; 8:45 am]

BILLING CODE 4160–01–S

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

Statement of Organization, Functions, and Delegations of Authority

Part C (Centers for Disease Control and Prevention) of the Statement of Organization, Functions, and Delegations of Authority of the Department of Health and Human Services (45 FR 67772–76, dated October 14, 1980, and corrected at 45 FR 69296, October 20, 1980, as amended most recently at 75 FR 10296, dated March 5, 2010) is amended to reflect the reorganization of the Office of the Chief Science Officer, Office of the Director, Centers for Disease Control and Prevention.

Section C–B, Organization and Functions, is hereby amended as follows: Delete in its entirety the title and functional statement for the Office of the Chief Science Officer (CAS), and insert the following:

Office of the Associate Director for Science (CAS). The Associate Director for Science (OADS) and staff provide CDC/ATSDR with scientific vision and leadership in promoting quality and integrity of CDC science, and helping to encourage the application of science to solving important public health problems.

Office of the Director (CAS1). (1) Directs, manages, and coordinates the activities of the OADS; (2) develops goals and objectives, provides leadership, policy formation, scientific oversight, and guidance in program planning and development; and (3) oversees functions of Office of Science Quality and Translation, Office of Scientific Integrity, and Innovation and Special Projects Activity.

Innovation and Special Projects Activity (CAS13). (1) Provides oversight and leadership in major or cross-cutting scientific activities; (2) represents the agency and the director on high-level internal and external scientific activities and groups; (3) develops and advances CDC research priorities; (4) handles high-profile or controversial issues and mediates (internally and externally) in difficult, contentious situations; (5) helps to develop and encourage innovation throughout the spectrum from scientific discovery to the application of science to solving health problems; (6) maintains regular, open, and transparent communication with CDC science community and uses the results to contribute to problem solving; (7) provides oversight for CDC science-related workgroups; (8) provides leadership opportunities for scientists; and (9) encourages appropriate internal and external collaborations and partnerships related to science issues.

Office of Science Quality and Translation (CASH). (1) Provides consultation and advice and support to the CDC OD, National Centers, programs, ADSs, MMWR, and other relevant organizations related to intramural and extramural scientific activities; (2) leads development of policies related to intramural and extramural science; (3) performs and facilitates good quality internal and external peer review; (4) ensures transparency and accountability of CDC extramural research programs; (5) provides oversight of knowledge management activities involving Documentum and eClearance; (6) supports and champions evidence-based decisionmaking to support practice, program, and policy inside and outside of CDC; (7) encourages the production and communication of science products that address essential questions for practice and policy; (8) assures that science products are perceived as timely and useful for decisionmaking; (9) enhances access to CDC publications; (10) feeds back key program and policy research gaps into the research agenda; and (11) links the needs of public health practitioners and decisionmakers into the development of CDC research projects and publications (in collaboration with Associate Directors for Program, and State, Tribal, Local, and Territorial Support).

Office of Scientific Integrity (CASJ). (1) Protects the rights and welfare of human beings who participate in research; (2) complies with laws and principles in the care and use of laboratory animals at CDC; (3) ensures compliance with Paperwork Reduction Act to protect the privacy of individuals in records maintenance; (4) serves as the agency research integrity liaison officer; (5) ensures leadership in public health ethics and integrate ethical analysis into day-to-day decisions and activities across CDC; (6) oversees emergency use authorization (EUA); (7) establishes newly required oversight and regulatory activities; (8) provides independent assessment and resolution of contentious situations/issues; and (9) provides training relevant to science quality and integrity to CDC community.

Dated: March 11, 2010.

William P. Nichols,

Chief Operating Officer, Centers for Disease Control and Prevention.

[FR Doc. 2010–6594 Filed 3–25–10; 8:45 am]

BILLING CODE 4160–18–M

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2010–0163]

Commercial Fishing Industry Vessel Safety Advisory Committee; Vacancies

AGENCY: Coast Guard, DHS.

ACTION: Request for applications.

SUMMARY: The Coast Guard seeks applications for membership on the Commercial Fishing Industry Vessel Safety Advisory Committee (CFIVSAC). The CFIVSAC provides advice and makes recommendations to the Coast Guard on matters relating to the safe operation of commercial fishing industry vessels.

DATES: Completed application forms should reach the Coast Guard at the address below on or before June 1, 2010.

ADDRESSES: You may request an application form by writing to Commandant (CG–5433), U.S. Coast Guard, 2100 Second Street, SW., Mail Stop 7581, Washington, DC 20593–7581; by calling 202–372–1249; or by faxing 202–372–1917. Send your application in written form to the above street address. This notice and the application form are also available on the Internet at *http://www.FishSafe.info.*

FOR FURTHER INFORMATION CONTACT: Mr. Jack Kemerer of the Coast Guard by telephone at 202–372–1249, fax 202–372–1917, e-mail: *jack.a.kemerer@uscg.mil.*

SUPPLEMENTARY INFORMATION: The CFIVSAC is a Federal advisory committee under 5 U.S.C. App. (Pub. L. 92–463). The Coast Guard chartered the CFIVSAC to provide advice on issues related to the safety of commercial fishing industry vessels regulated under Chapter 45 of Title 46, United States Code, which includes uninspected fishing vessels, fish processing vessels, and fish tender vessels. (*See 46 U.S.C. 4508.*)

The CFIVSAC meets at least once a year. It may also meet for other extraordinary purposes. Its subcommittees may gather throughout the year to prepare for meetings or develop proposals for the committee as a whole to address specific problems.

The Coast Guard will consider applications for five positions that expire or become vacant in October 2010 in the following categories: (a) Commercial Fishing Industry (two positions); (b) Education or Training Professionals related to fishing vessels or personnel qualifications (one position); (c) Underwriters that insure fishing vessels (one position); and (d) General Public (one position).

The CFIVSAC consists of 17 members as follows: (a) Ten members from the commercial fishing industry who reflect a regional and representational balance and have experience in the operation of vessels to which Chapter 45 of Title 46, United States Code applies, or as a crew member or processing line member on an uninspected fish processing vessel; (b) one member representing each of (1) naval architects or marine surveyors; (2) manufacturers of equipment for vessels to which Chapter 45 of Title 46, U.S.C. applies; (3) education or training professionals related to fishing vessels, fish processing vessels, fish tender vessel safety, or personnel qualifications; and (4) underwriters that insure vessels to which Chapter 45 of Title 46, U.S.C. applies; and (c) three members representing the general public including, whenever possible, an independent expert or consultant in maritime safety and a member of a national organization composed of persons representing owners of vessels to which Chapter 45 of Title 46, U.S.C. applies and persons representing the marine insurance industry.

Each member serves for a term of three years. An individual may be appointed to a term as a member more than once. All members serve at their own expense and receive no salary from the Federal Government, although travel reimbursement and per diem may be provided.

In support of the Coast Guard policy on gender and ethic nondiscrimination, we encourage qualified men and women and members of all racial and ethnic groups to apply. The Coast Guard values diversity; all the different characteristics and attributes of persons that enhance the mission of the Coast Guard.

If you are selected as a "non-representative" member, or as a member who represents the general public, you will be appointed and serve as a Special Government Employee (SGE) as defined in section 202(a) of Title 18, United States Code. As a candidate for appointment as a SGE, applicants are required to complete a Confidential Financial Disclosure Report (OGE Form 450). A completed OGE Form 450 is not releasable to the public except under an order issued by a Federal court or as otherwise provided under the Privacy Act (5 U.S.C. 552a). Only the Designated Agency Ethics Official (DAEO) or the DAEO's designate may release a Confidential Financial Disclosure Report.

Dated: March 18, 2010.

F.J. Sturm,

Acting Director of Commercial Regulations and Standards.

[FR Doc. 2010–6694 Filed 3–25–10; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–5376–N–19]

Notice of Submission of Proposed Information Collection to OMB; Emergency Comment Request; HUD ARRA Section 1512 Reporting

AGENCY: Office of Strategic Planning and Management, HUD.

ACTION: Notice of proposed information collection.

SUMMARY: The proposed information collection requirement described below has been submitted to the Office of Management and Budget (OMB) for emergency review and approval, as required by the Paperwork Reduction Act. The Department is soliciting public comments on the subject proposal.

DATES: *Comments Due Date: April 2, 2010.*

ADDRESSES: Interested persons are invited to submit comments regarding this proposal. Comments must be received within seven (7) days from the date of this Notice. Comments should refer to the proposal by name/or OMB approval number and should be sent to: Mr. Ross A. Rutledge, HUD Desk Officer, Office of Management and Budget, New Executive Office Building, Washington, DC 20503; e-mail: *RossA.Rutledge @omb.eop.gov;* fax: (202) 395–5806.

FOR FURTHER INFORMATION CONTACT: Leroy McKinney, PRA Program Manager, OCIO, Department of Housing and Urban Development, 451 Seventh Street, SW., Washington, DC 20410; e-mail: *Leroy.McKinneyJr@hud.gov;* telephone (202) 402–5564. This is not a toll-free number. Copies of available documents submitted to OMB may be obtained from Mr. McKinney.

SUPPLEMENTARY INFORMATION: This Notice is soliciting comments from members of the public and affected agencies concerning the proposed collection of information to: (1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (2) evaluate the accuracy of the agency's estimate of the burden of the proposed

collection of information; (3) enhance the quality, utility, and clarity of the information to be collected; and (4) minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated collection techniques or other forms of information technology; e.g., permitting electronic submission of responses.

In addition, section 1512 of the Recovery Act requires that not later than 10 days after the end of each calendar quarter, each recipient that received recovery funds from a federal agency shall submit a report to that agency that contains: (1) The total amount of recovery funds received from the agency; (2) the amount of recovery funds received that were expended or obligated, to projects or activities; and (3) a detailed list of all projects or activities for which recovery funds were expended or obligated, including the name of the project or activity; a description of the project or activity, an evaluation of the completion status of the project or activity; an estimate of the number of jobs created and the number of jobs retained by the project or activity; and for infrastructure investments made by State and local governments, the purpose, total cost, and rationale of the agency for funding the infrastructure investment with funds made available under the Recovery Act and name of the person to contact at the agency if there are concerns with the infrastructure investment.

This Notice also lists the following information:

Title of Proposal: HUD Core Activities related to the Recovery Act.

Description of Information Collection: Public Housing Capital Fund, Assisted Housing Stability and Energy and Green Retrofit Investments Program, Community Development Block Grants, Indian Community Development Block Grant Program, Native American Housing Block Grants, Native Hawaiian Housing Block Grants, Tax Credit Assistance Program, Lead Hazard Control Grant Program; must provide information to HUD for the reporting requirements of HUD ARRA Section 1512. ("Recovery Act") grants. Section 1512 of the Recovery Act details the reporting requirements for the recipients of recovery Act funding. Recipients are to report on the obligation and expenditure of Recovery Act funds, the projects on which those funds have been obligated and expended, an evaluation of the completion status of projects and the number of jobs created and jobs retained by the project.

OMB Control Number: 2577–0264.

Agency Form Numbers: N/A, the data will be collected utilizing a web-based application.

Members of Affected Public: State, Local Government and Non-profit organization.

Estimation of the total numbers of hours needed to prepare the information collection including number of respondents, frequency of responses, and hours of responses: The estimated number of respondents is 5,500 and the number of responses is 4. There will be in total, approximately 22,000 total responses. The total reporting burden is 90,200 hours.

Status of the proposed information collection: Revision of previously approved collection on Recovery Act projects.

Authority: The Paperwork Reduction Act of 1995, 44 U.S.C. Chapter 35, as amended.

Dated: March 22, 2010.

Leroy McKinney Jr.,

Departmental PRA Compliance Officer.

[FR Doc. 2010–6736 Filed 3–25–10; 8:45 am]

BILLING CODE 4210–67–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–5376–N–20]

Notice of Submission of Proposed Information Collection to OMB; Emergency Comment Request; Housing Choice Voucher Program (Voucher Management System Enhancements and Reporting Requirements)

AGENCY: Office of the Chief Information Officer, HUD.

ACTION: Notice of proposed information collection.

SUMMARY: The proposed information collection requirement described below has been submitted to the Office of Management and Budget (OMB) for emergency review and approval, as required by the Paperwork Reduction Act. The Department is soliciting public comments on the subject proposal, to assure better understanding of the reporting requirements and consistency in the submission of data.

DATES: *April 2, 2010.*

ADDRESSES: Interested persons are invited to submit comments regarding this proposal. Comments must be received within seven (7) days from the date of this Notice. Comments should refer to the proposal by name/or OMB approval number and should be sent to: Mr. Ross A. Rutledge, HUD Desk Officer, Office of Management and Budget, New Executive Office Building, Washington, DC 20503; *e-mail: RossA.Rutledge@omb.eop.gov; fax:* (202) 395–5806.

FOR FURTHER INFORMATION CONTACT: Leroy McKinney, Jr., Departmental Reports Management Officer, QDAM, Department of Housing and Urban Development, 451 7th Street, SW., Room 4178, Washington, DC 20410–5000; telephone 202–402–8048, (this is not a toll-free number) or email Mr. McKinney at *Leroy.McKinneyJr@hud.gov* for a copy of the proposed forms, or other available information. Copies of available documents submitted to OMB may be obtained from Mr. McKinney.

SUPPLEMENTARY INFORMATION: This Notice informs the public that the U.S. Department of Housing and Urban Development (HUD) has submitted to OMB, for emergency processing, a proposed information collection that requires the addition of four new input fields within the Voucher Management System (VMS).

The VMS is currently used by Public Housing Agencies (PHAs) to report their monthly leasing and expense information in connection with the Housing Choice Voucher (HCV) program. The VMS collects data on monthly leasing activities and costs for the HCV program via mandatory PHA reporting. It is a critical data system that is used for a variety of major functions, including budget formulation, utilization analysis, and funding allocations. As such, accuracy of the data is extremely important.

The system is periodically enhanced to provide new flexibilities or features for improved ease and accuracy of reporting and use of the data. Accordingly, the new VMS reporting fields are designed to provide greater effectiveness in monitoring the PHAs' financial data and to provide a more complete picture of the PHAs' funding and resources. The reporting enhancements are expected to assist HUD's goal of achieving improved financial accountability by the PHAs and greater recognition of potential shortfalls that may impede the PHAs' ability to assist as many families and individuals as possible while staying within their budget.

Title of Proposed Notice: Housing Choice Voucher Program (Voucher Management System Enhancements and Reporting Requirements.)

Description of Information Collection: This is a revision of a previously approved information collection. The Department of Housing and Urban Development is seeking emergency review of the Paperwork Reduction Act

requirements associated with the Office of Public Housing and Voucher Program's Voucher Management System. The four additional reporting fields will be crucial to the identification of actual or incipient financial problems that will ultimately affect funding for program participants. Through submission of these monthly reports, HUD is able to ensure that PHAs do not over or under utilize their baseline unit months or annual budget authority, thereby maximizing the number of qualified families that can participate in the Housing Choice Voucher programs.

The reporting fields and their definitions are described as follows:

(1) Net Restricted Assets (NRA) as of the Last Day of the Month

For Reference: NRA is the amount reported on the income statement at line 1118—Restricted Net Assets. The NRA reported in VMS must be updated through the end of the reporting month.

Definition: NRA is the amount of Housing Assistance Payments (HAP) Equity for the Housing Choice Voucher (HCV) program. It is equal to total HAP revenue minus total HAP expense for eligible unit months leased on a calendar year basis. Total HAP expense should include expenses for regular vouchers as well as expenses for certain HCV special purpose vouchers including Non-Elderly Disabled (NED), Family Unification Program (FUP), HOPE VI, One Year Mainstream (MS1), Litigation, Tenant Protection (TP), and Homeownership. Total HAP revenue is defined as total funding eligibility for calendar years 2005 and later (including pro-rated renewal eligibility plus funding for incremental vouchers) minus any offsets for 2008 and 2009, and should equal the amount actually disbursed to the PHA. The amount reported must include all interest earned, fraud recovery, and Family Self-Sufficiency (FSS) forfeitures. Veterans Affairs Supportive Housing (VASH) NRA is not reported in this field. Those funds are tracked separately and the balance is reported in Line 1118—Restricted Net Assets.

The balance of this account will be carried forward on a monthly basis beginning January 1, 2005, through the end of the current month. Note: Negative amounts must be reported; however, if the PHA has a negative balance at the end of the calendar year the negative amount must not be carried forward to January of the following year. The PHA must start with a zero balance at the beginning of January for purposes of reporting in this field. PHAs are advised that although the negative amount is not carried forward to the following year the deficit incurred by the PHA is not forgiven nor will additional funds be provided to cover the shortage. The PHA is responsible for operating their program within the amount of funding provided. Negative amounts reported may result in a HUD review and corrective action may be warranted if it is determined the PHA expended any portion of their HAP funding on non-HAP eligible expenses.

Moving to Work (MTW) PHAs should report their financial information as required in their MTW Agreement.

(2) Unrestricted Net Assets (UNA) as of the Last Day of the Month

For reference: UNA is the amount reported on the income statement at line 1117—Administrative Fee Equity. The UNA reported in VMS must be updated through the end of the reporting month.

Definition: UNA is equal to total Administrative Fee (AF) revenue minus total HCV administrative expenses and any AF used for housing assistance payments (HAP) or other activities for Section 8 Tenant Based related purposes. UNA (referred to Administrative Fee Reserve in the HCV voucher program regulations) is the amount by which program administrative fees paid by HUD for a PHA fiscal year exceeded the PHA program administrative expenses for the fiscal year plus any interest earned on the administrative fee reserve (see 24 CFR 982.155(a)). This means that the total administrative fee revenue used to calculate the UNA reported in this Field does not include administrative fees received during the current PHA fiscal year, because excess AF received does not accumulate to the UNA until the end of the PHA's fiscal year. The excess fees received during the PHA's current fiscal year will not be reported in the UNA field until after PHA's fiscal year in which they were received has ended. The monthly amount reported is the current UNA balance (including any interest earned and fraud recovery allocated to the UNA account for the month being reported). PHAs must also include in this field their pre-2005 AF balance, formerly referred to as their operating reserve (also known as their administrative fee reserve). MTW PHAs should report their financial information as required in their MTW Agreement.

(3) Cash/Investments as of the Last Day of the Month

For Reference: These are the amounts reported on the balance sheet at lines 111—Cash—Unrestricted; 113—Cash—other restricted; 131—Investments—Unrestricted; and 132—Investments—restricted. The Cash/Investments reported in VMS must be updated through the end of the reporting month.

Definition: Cash/Investments as of the last day of the month is the total amount of housing assistance payments (HAP) and administrative fee (AF) cash and investments for the Housing Choice Voucher (HCV) program. This amount must include only those HAP and AF funds (including any interest or revenue derived) received for the HCV program, including interest earned, fraud recovery and Family Self-Sufficiency (FSS) forfeitures. Funds received for FSS Coordinator and not expensed must not be included. Cash and investments for FSS escrows must not be included. MTW PHAs should report their financial information as required in their MTW Agreement.

(4) Number of Vouchers Issued But Not Under Active Housing Assistance Payment (HAP) Contract as of the Last Day of the Month

Definition: This figure represents the total number of new vouchers issued and not yet under a HAP contract as of the last day of the reporting period.

This figure excludes vouchers issued to participants who are currently under HAP contract in one unit but have been issued a voucher to search for another unit to which they intend to move with continued voucher assistance.

Example: A PHA has 125 vouchers issued and "on the street," as follows: (a) 105 families are applicants from the PHA's waiting list that were selected and issued vouchers; (b) 10 families are participants whose HQS inspection resulted in abatement, and their contracts were terminated; (c) 5 families are Port-ins that the PHA is absorbing; and (d) 5 families are transferring from other units for which they are currently being assisted. In this example, the first 120 families from categories a, b and c will be reported in the VMS field described in (4), above. The remaining 5 families in (d) would not be reported in this field.

Public comment is invited from interested parties specifically with regard to whether clarification is needed to better understand the definitions provided herein for the four new VMS reporting fields. Commenters are requested to explain in detail the basis for all comments submitted.

OMB Control Number: 2577–0169.

Agency Form Numbers: Automated form HUD 52681–B (VMS) will be used to collect data.

Members Of Affected Public: Business or other for-profit, State, Local Government.

Estimation of the total numbers of hours needed to prepare the information

collection including number of respondents, frequency of responses, and hours of responses: The estimated number of respondents is 2,450; the frequency of response is once per month; and the total reporting burden will change from the current total reporting time of 44,100 hours to 58,800 hours. The requested information is currently maintained by the PHAs as part of their monthly balance sheets, income statements, and on-site voucher tracking for purposes of annual reporting; however the four new fields will require the PHAs to report the information monthly.

Authority: The Paperwork Reduction Act of 1995, 44 U.S.C. Chapter 35, as amended.

Dated: March 22, 2010.

Leroy McKinney,

Departmental Reports Management Officer, Office of the Chief Information Officer.

[FR Doc. 2010–6737 Filed 3–25–10; 8:45 am]

BILLING CODE 4210–67–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–5374–N–09]

Buy American Exceptions Under the American Recovery and Reinvestment Act of 2009

AGENCY: Office of the Assistant Secretary for Public and Indian Housing, HUD.

ACTION: Notice.

SUMMARY: In accordance with the American Recovery and Reinvestment Act of 2009 (Pub. L. 111–05, approved February 17, 2009) (Recovery Act), and implementing guidance of the Office of Management and Budget (OMB), this notice advises that certain exceptions to the Buy American requirement of the Recovery Act have been determined applicable for work using Capital Fund Recovery Formula and Competition (CFRFC) grant funds. Specifically, an exception was granted to the Oshkosh Housing Authority, in Oshkosh, WI, for the purchase and installation of a City Multi R2 ductless, variable refrigerant flow (VRF) split system for Heating, Ventilation, and Air Conditioning (HVAC) renovations at the Mainview Apartments.

FOR FURTHER INFORMATION CONTACT: Dominique G. Blom, Deputy Assistant Secretary for Public Housing Investments, Office of Public Housing Investments, Office of Public and Indian Housing, Department of Housing and Urban Development, 451 7th Street, SW., Room 4210, Washington, DC 20410–4000, telephone number 202–402–8500 (this is not a toll-free number). Persons with hearing- or speech-impairments may access this number through TTY by calling the toll-free Federal Information Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION: Section 1605(a) of the Recovery Act provides that none of the funds appropriated or made available by the Recovery Act may be used for a project for the construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States. Section 1605(b) provides that the Buy American requirement shall not apply in any case or category in which the head of a Federal department or agency finds that: (1) Applying the Buy American requirement would be inconsistent with the public interest; (2) iron, steel, and the relevant manufactured goods are not produced in the U.S. in sufficient and reasonably available quantities or of satisfactory quality, or (3) inclusion of iron, steel, and manufactured goods will increase the cost of the overall project by more than 25 percent. Section 1605(c) provides that if the head of a Federal department or agency makes a determination pursuant to section 1605(b), the head of the department or agency shall publish a detailed written justification in the **Federal Register.**

In accordance with section 1605(c) of the Recovery Act and OMB's implementing guidance published on April 23, 2009 (74 FR 18449), this notice advises the public that, on, March 10, 2010, upon request of the Oshkosh Housing Authority, HUD granted an exception to the applicability of the Buy American requirements with respect to work, using CFRFC grant funds, based on the fact that the relevant manufactured goods (ductless VRF split system) are not produced in the U.S. in sufficient and reasonably available quantities or of satisfactory quality.

Dated: March 19, 2010.

Sandra B. Henriquez,

Assistant Secretary for Public and Indian Housing.

[FR Doc. 2010–6729 Filed 3–25–10; 8:45 am]

BILLING CODE 4210–67–P

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

[Docket No. FR–5375–N–11]

Federal Property Suitable as Facilities To Assist the Homeless

AGENCY: Office of the Assistant Secretary for Community Planning and Development, HUD.

ACTION: Notice.

SUMMARY: This Notice identifies unutilized, underutilized, excess, and surplus Federal property reviewed by HUD for suitability for possible use to assist the homeless.

FOR FURTHER INFORMATION CONTACT: Kathy Ezzell, Department of Housing and Urban Development, 451 Seventh Street SW., Room 7266, Washington, DC 20410; telephone (202) 708–1234; TTY number for the hearing- and speech-impaired (202) 708–2565 (these telephone numbers are not toll-free), or call the toll-free Title V information line at 800–927–7588.

SUPPLEMENTARY INFORMATION: In accordance with 24 CFR part 581 and section 501 of the Stewart B. McKinney Homeless Assistance Act (42 U.S.C. 11411), as amended, HUD is publishing this Notice to identify Federal buildings and other real property that HUD has reviewed for suitability for use to assist the homeless. The properties were reviewed using information provided to HUD by Federal landholding agencies regarding unutilized and underutilized buildings and real property controlled by such agencies or by GSA regarding its inventory of excess or surplus Federal property. This Notice is also published in order to comply with the December 12, 1988 Court Order in *National Coalition for the Homeless* v. *Veterans Administration,* No. 88–2503–OG (D.D.C.).

Properties reviewed are listed in this Notice according to the following categories: Suitable/available, suitable/unavailable, suitable/to be excess, and unsuitable. The properties listed in the three suitable categories have been reviewed by the landholding agencies, and each agency has transmitted to HUD: (1) Its intention to make the property available for use to assist the homeless, (2) its intention to declare the property excess to the agency's needs, or (3) a statement of the reasons that the property cannot be declared excess or made available for use as facilities to assist the homeless.

Properties listed as suitable/available will be available exclusively for homeless use for a period of 60 days from the date of this Notice. Where

property is described as for "off-site use only" recipients of the property will be required to relocate the building to their own site at their own expense. Homeless assistance providers interested in any such property should send a written expression of interest to HHS, addressed to Theresa Rita, Division of Property Management, Program Support Center, HHS, room 5B–17, 5600 Fishers Lane, Rockville, MD 20857; (301) 443–2265. (This is not a toll-free number.) HHS will mail to the interested provider an application packet, which will include instructions for completing the application. In order to maximize the opportunity to utilize a suitable property, providers should submit their written expressions of interest as soon as possible. For complete details concerning the processing of applications, the reader is encouraged to refer to the interim rule governing this program, 24 CFR part 581.

For properties listed as suitable/to be excess, that property may, if subsequently accepted as excess by GSA, be made available for use by the homeless in accordance with applicable law, subject to screening for other Federal use. At the appropriate time, HUD will publish the property in a Notice showing it as either suitable/available or suitable/unavailable.

For properties listed as suitable/unavailable, the landholding agency has decided that the property cannot be declared excess or made available for use to assist the homeless, and the property will not be available.

Properties listed as unsuitable will not be made available for any other purpose for 20 days from the date of this Notice. Homeless assistance providers interested in a review by HUD of the determination of unsuitability should call the toll free information line at 1–800–927–7588 for detailed instructions or write a letter to Mark Johnston at the address listed at the beginning of this Notice. Included in the request for review should be the property address (including zip code), the date of publication in the **Federal Register**, the landholding agency, and the property number.

For more information regarding particular properties identified in this Notice (*i.e.,* acreage, floor plan, existing sanitary facilities, exact street address), providers should contact the appropriate landholding agencies at the following addresses: *AIR FORCE:* Mr. Robert Moore, Air Force Real Property Agency, 143 Billy Mitchell Blvd., San Antonio, TX 78226, (210) 925–3047; *COAST GUARD:* Commandant, United States Coast Guard, *Attn:* Jennifer Stomber, 2100 Second St., SW., Stop 7901, Washington, DC 20593–0001; (202) 475–5609; *GSA:* Mr. Gordon Creed, Acting Deputy Assistant Commissioner, General Services Administration, Office of Property Disposal, 18th & F Streets, NW., Washington, DC 20405; (202) 501–0084; *INTERIOR:* Mr. Michael Wright, Acquisition & Property Management, Department of the Interior, 1849 C Street, NW., Washington, DC 20240: (202) 208–5399; *NAVY:* Mr. Albert Johnson, Director of Real Estate, Department of the Navy, Naval Facilities Engineering Command, Washington Navy Yard, 1330 Patterson Ave., SW., Suite 1000, Washington, DC 20374; (202) 685–9305; (These are not toll-free numbers).

Dated: March 18, 2010.

Mark R. Johnston,

Deputy Assistant Secretary for Special Needs.

Title V, Federal Surplus Property Program

Federal Register Report For 03/26/2010

Suitable/Available Properties

Building

California

Facility 1
OTHB Radar Site
Tulelake, CA 91634
Landholding Agency: Air Force
Property Number: 18200830012
Status: Unutilized
Comments: 7920 sq. ft., most recent use—communications

Facility 2
OTHB Radar Site
Tulelake, CA 91634
Landholding Agency: Air Force
Property Number: 18200830014
Status: Unutilized
Comments: 900 sq. ft., most recent use—veh maint shop

Facilities 3, 4
OTHB Radar Site
Tulelake, CA 91634
Landholding Agency: Air Force
Property Number: 18200830015
Status: Unutilized
Comments: 4160 sq. ft. each, most recent use—communications

Facility 1
OTHB Radar Site
Christmas Valley, CA 97641
Landholding Agency: Air Force
Property Number: 18200830016
Status: Unutilized
Comments: 16566 sq. ft., most recent use—communications

Facility 2
OTHB Radar Site
Christmas Valley, CA 97641
Landholding Agency: Air Force
Property Number: 18200830017
Status: Unutilized
Comments: 900 sq. ft., most recent use—veh maint shop

Facility 4
OTHB Radar Site
Christmas Valley, CA 97641
Landholding Agency: Air Force
Property Number: 18200830018
Status: Unutilized
Comments: 14,190 sq. ft., most recent use—communications

Facility 6
OTHB Radar Site
Christmas Valley, CA 97641
Landholding Agency: Air Force
Property Number: 18200830019
Status: Unutilized
Comments: 14,190 sq. ft., most recent use—transmitter bldg.

Hawaii

Bldg. 849
Bellows AFS
Bellows AFS, HI
Landholding Agency: Air Force
Property Number: 18200330008
Status: Unutilized
Comments: 462 sq. ft., concrete storage facility, off-site use only

Maine

Bldgs 1, 2, 3, 4
OTH–B Radar Site
Columbia Falls, ME
Landholding Agency: Air Force
Property Number: 18200840009
Status: Unutilized
Comments: Various sq. ft., most recent use—storage/office

New York

Bldg. 240
Rome Lab
Rome Co: Oneida NY 13441
Landholding Agency: Air Force
Property Number: 18200340023
Status: Unutilized
Comments: 39108 sq. ft., presence of asbestos, most recent use—Electronic Research Lab

Bldg. 247 Rome Lab
Rome Co: Oneida,NY 13441
Landholding Agency: Air Force
Property Number: 18200340024
Status: Unutilized
Comments: 13199 sq. ft., presence of asbestos, most recent use—Electronic Research Lab

Bldg. 248
Rome Lab
Rome Co: Oneida, NY 13441
Landholding Agency: Air Force
Property Number: 18200340025
Status: Unutilized
Comments: 4000 sq. ft., presence of asbestos, most recent use—Electronic Research Lab

Bldg. 302
Rome Lab
Rome Co: Oneida, NY 13441
Landholding Agency: Air Force
Property Number: 18200340026
Status: Unutilized
Comments: 10288 sq. ft., presence of asbestos, most recent use—communications facility

Ohio

Federal Building
201 Cleveland Ave.
Canton, OH 44702
Landholding Agency: GSA

Property Number: 54201010018
Status: Excess
GSA Number: 1–G–OH–840
Comments: 44,545 sq. ft., possible asbestos/lead paint, National Register of Historic Places, most recent use—office

South Carolina

256 Housing Units
Charleston AFB
South Side Housing
Charleston, SC
Landholding Agency: Air Force
Property Number: 18200920001
Status: Excess
Comments: Various sq. ft., presence of asbestos/lead paint, off-site use only

Suitable/Available Properties

Land

Arizona

Guadalupe Road Land,
Ironwood Road
Apache Junction, AZ 95971
Landholding Agency: GSA
Property Number: 54201010012
Status: Surplus
GSA Number: 9–AZ–851–1
Comments: 1.36 acres, most recent use—aqueduct reach

Houston Road Land,
Ironwood Road
Apache Junction, AZ 85278
Landholding Agency: GSA
Property Number: 54201010013
Status: Surplus
GSA Number: 9–AZ–854
Comments: 5.89 acres, most recent use—aqueduct reach

95th Ave/Bethany Home Rd
Glendale, AZ 85306
Landholding Agency: GSA
Property Number: 54201010014
Status: Surplus
GSA Number: 9–AZ–852
Comments: 0.29 acre, most recent use—irrigation canal

California

Parcels L1 & L2
George AFB
Victorville, CA 92394
Landholding Agency: Air Force
Property Number: 18200820034
Status: Excess
Comments: 157 acres/desert, pump-and-treat system, groundwater restrictions, AF access rights, access restrictions, environmental concerns

Missouri

Communications Site
County Road 424
Dexter Co: Stoddard, MO
Landholding Agency: Air Force
Property Number: 18200710001
Status: Unutilized
Comments: 10.63 acres

Outer Marker Annex
Whiteman AFB
Knob Noster, MO 65336
Landholding Agency: Air Force
Property Number: 18200940001
Status: Unutilized
Comments: 0.75 acres, most recent use—communication

North Carolina

0.14 acres
Pope AFB
Pope AFB, NC
Landholding Agency: Air Force
Property Number: 18200810001
Status: Excess
Comments: Most recent use—middle marker, easement for entry

Texas

0.13 acres
DYAB, Dyess AFB
Tye Co: Taylor TX 79563
Landholding Agency: Air Force
Property Number: 18200810002
Status: Unutilized
Comments: Most recent use—middle marker, access limitation

Suitable/Unavailable Properties

Building

Washington

Bldg. 404/Geiger Heights
Fairchild AFB
Spokane WA 99224
Landholding Agency: Air Force
Property Number: 18200420002
Status: Unutilized
Comments: 1996 sq. ft., possible asbestos/lead paint, most recent use—residential

11 Bldgs./Geiger Heights
Fairchild AFB
Spokane WA 99224
Landholding Agency: Air Force
Property Number: 18200420003
Status: Unutilized
Comments: 2134 sq. ft., possible asbestos/lead paint, most recent use—residential

Bldg. 297/Geiger Heights
Fairchild AFB
Spokane WA 99224
Landholding Agency: Air Force
Property Number: 18200420004
Status: Unutilized
Comments: 1425 sq. ft., possible asbestos/lead paint, most recent use—residential

9 Bldgs./Geiger Heights
Fairchild AFB
Spokane WA 99224
Landholding Agency: Air Force
Property Number: 18200420005
Status: Unutilized
Comments: 1620 sq. ft., possible asbestos/lead paint, most recent use—residential

22 Bldgs./Geiger Heights
Fairchild AFB
Spokane WA 99224
Landholding Agency: Air Force
Property Number: 18200420006
Status: Unutilized
Comments: 2850 sq. ft., possible asbestos/lead paint, most recent use—residential

51 Bldgs./Geiger Heights
Fairchild AFB
Spokane WA 99224
Landholding Agency: Air Force
Property Number: 18200420007
Status: Unutilized
Comments: 2574 sq. ft., possible asbestos/lead paint, most recent use—residential

Bldg. 402/Geiger Heights
Fairchild AFB
Spokane WA 99224
Landholding Agency: Air Force
Property Number: 18200420008
Status: Unutilized
Comments: 2451 sq. ft., possible asbestos/lead paint, most recent use—residential

5 Bldgs./Geiger Heights
Fairchild AFB
222, 224, 271, 295, 260 Spokane WA 99224
Landholding Agency: Air Force
Property Number: 18200420009
Status: Unutilized
Comments: 3043 sq. ft., possible asbestos/lead paint, most recent use—residential

5 Bldgs./Geiger Heights
Fairchild AFB
102, 183, 118, 136, 113
Spokane WA 99224
Landholding Agency: Air Force
Property Number: 18200420010
Status: Unutilized
Comments: 2599 sq. ft., possible asbestos/lead paint, most recent use—residential

Land

South Dakota

Tract 133
Ellsworth AFB
Box Elder Co: Pennington SD 57706
Landholding Agency: Air Force
Property Number: 18200310004
Status: Unutilized
Comments: 53.23 acres

Tract 67
Ellsworth AFB
Box Elder Co: Pennington SD 57706
Landholding Agency: Air Force

Property Number: 18200310005
Status: Unutilized
Comments: 121 acres, bentonite layer in soil, causes movement

Unsuitable Properties

Building

Alabama

15 Bldgs.
Dauphin Island
Mobile, AL
Landholding Agency: Coast Guard
Property Number: 88200930002
Status: Underutilized
Reasons: Secured Area

Alaska

Bldg. 9485
Elmendorf AFB
Elmendorf, AK
Landholding Agency: Air Force
Property Number: 18200730001
Status: Unutilized
Reasons: Secured Area

Bldg. 70500
Seward, AFB
Seward AK 99664
Landholding Agency: Air Force
Property Number: 18200820001
Status: Unutilized
Reasons: Secured Area

Bldg. 3224
Eielson AFB
Eielson, AK 99702
Landholding Agency: Air Force
Property Number: 18200820002
Status: Unutilized
Reasons: Extensive deterioration Secured Area

Bldgs. 1437, 1190, 2375
Eielson, AFB
Eielson AK
Landholding Agency: Air Force
Property Number: 18200830001
Status: Unutilized
Reasons: Secured Area Extensive deterioration

5 Bldgs.
Eielson, AFB
Eielson AK
Landholding Agency: Air Force
Property Number: 18200830002
Status: Unutilized
Directions: 3300, 3301, 3315, 3347, 3383
Reasons: Secured Area Extensive deterioration

4 Bldgs.
Eielson AFB
Eielson, AK
Landholding Agency: Air Force
Property Number: 18200830003
Status: Unutilized
Directions: 4040, 4332, 4333, 4480
Reasons: Extensive deterioration Secured Area

Bldgs. 6122, 6205
Eielson, AFB
Eielson AK
Landholding Agency: Air Force
Property Number: 18200830004
Status: Unutilized
Reasons: Extensive deterioration Secured Area

Bldg. 8128
Elmendorf, AFB
Elmendorf AK 99506
Landholding Agency: Air Force
Property Number: 18200830005
Status: Underutilized
Reasons: Secured Area

Bldg. 7111
Elmendorf AFB
Anchorage, AK
Landholding Agency: Air Force
Property Number: 18200920014
Status: Unutilized
Reasons: Secured Area

Bldgs. 615, 617, 751, 753
Eareckson Air Station
Shemya Island, AK
Landholding Agency: Air Force
Property Number: 18200920015
Status: Unutilized
Reasons: Within airport runway clear zone Extensive deterioration Within 2000 ft. of flammable or explosive material Secured Area

Bldgs. 100, 101
Point Barrow Long Range
Radar Site
Point Barrow, AK
Landholding Agency: Air Force
Property Number: 18201010001
Status: Unutilized
Reasons: Within 2000 ft. of flammable or explosive material Within airport runway clear zone

Radar Tower
Potato Point Comm Site
Valdez, AK
Landholding Agency: Coast Guard
Property Number: 88200710001
Status: Excess
Reasons: Not accessible by road Secured Area Within 2000 ft. of flammable or explosive material

Bldg. 12B
Integrated Support Command
Kodiak, AK
Landholding Agency: Coast Guard
Property Number: 88200810003
Status: Excess
Reasons: Secured Area Within 2000 ft. of flammable or explosive material Extensive deterioration

Bldg. 554
Integrated Support Command
Kodiak, AK
Landholding Agency: Coast Guard
Property Number: 88200810004
Status: Excess
Reasons: Secured Area Within 2000 ft. of flammable or explosive material

Bldg. B02
USCG DGPS
Annette Island, AK 99926
Landholding Agency: Coast Guard
Property Number: 88200820001
Status: Excess
Reasons: Secured Area

Bldg. B02
USCG DGPS
Gustavus, AK 99826
Landholding Agency: Coast Guard
Property Number: 88200820002
Status: Excess
Reasons: Secured Area

Bldg. 10
LORAN Station
Carroll Inlet, AK
Landholding Agency: Coast Guard
Property Number: 88200840001
Status: Excess
Reasons: Not accessible by road Extensive deterioration

Transmitter Bldg. B4A
Loran Station
St. Paul, AK 99660
Landholding Agency: Coast Guard
Property Number: 88200920001
Status: Excess
Reasons: Contamination

Arizona

Railroad Spur
Davis-Monthan AFB
Tucson AZ 85707
Landholding Agency: Air Force
Property Number: 18200730002
Status: Excess
Reasons: Within airport runway clear zone

6 Bldgs., Tract 102–01
National Park
Grand Canyon AZ 86052
Landholding Agency: Interior
Property Number: 61201010004
Status: Excess
Directions: 935, 936, 937, 938, 939, 940
Reasons: Extensive deterioration

Arkansas

Tracts 04–152, 06–110
National Park
Hot Springs AR 71901
Landholding Agency: Interior
Property Number: 61201010003
Status: Unutilized
Reasons: Extensive deterioration

California

Bldgs. 5001 thru 5082
Edwards AFB
Area A
Los Angeles CA 93524
Landholding Agency: Air Force
Property Number: 18200620002
Status: Unutilized
Reasons: Extensive deterioration Secured Area

Garages 25001 thru 25100
Edwards AFB
Area A
Los Angeles CA 93524
Landholding Agency: Air Force
Property Number: 18200620003
Status: Unutilized
Reasons: Extensive deterioration Secured Area

Bldg. 00275
Edwards AFB
Kern CA 93524
Landholding Agency: Air Force
Property Number: 18200730003
Status: Unutilized
Reasons: Within airport runway clear zone Secured Area Extensive deterioration

Bldgs. 02845, 05331, 06790
Edwards AFB
Kern CA 93524
Landholding Agency: Air Force
Property Number: 18200740001
Status: Unutilized
Reasons: Extensive deterioration

Bldgs. 07173, 07175, 07980
Edwards AFB
Kern CA 93524
Landholding Agency: Air Force
Property Number: 18200740002
Status: Unutilized
Reasons: Secured Area

Bldg. 5308
Edwards AFB
Kern CA 93523
Landholding Agency: Air Force
Property Number: 18200810003
Status: Unutilized
Reasons: Secured Area Extensive deterioration

Facility 100
Pt. Arena AF Station
Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200810004
Status: Excess
Reasons: Secured Area Extensive deterioration

Bldgs. 1952, 1953, 1957, 1958
Vandenberg AFB
Vandenberg CA 93437
Landholding Agency: Air Force
Property Number: 18200820007
Status: Unutilized
Reasons: Secured Area

Bldgs. 1992, 1995
Vandenberg AFB
Vandenberg CA 93437
Landholding Agency: Air Force
Property Number: 18200820008
Status: Unutilized
Reasons: Secured Area

5 Bldgs.
Pt. Arena AF Station
101, 102, 104, 105, 108

Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200820019
Status: Excess
Reasons: Extensive deterioration Secured Area

Bldgs. 160, 161, 166
Pt. Arena AF Station
Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200820020
Status: Excess
Reasons: Extensive deterioration Secured Area

8 Bldgs.
Pt. Arena AF Station
Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200820021
Status: Excess
Directions: 201, 202, 203, 206, 215, 216, 217, 218
Reasons: Secured Area Extensive deterioration

7 Bldgs.
Pt. Arena AF Station
Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200820022
Status: Excess
Directions: 220, 221, 222, 223, 225, 226, 228
Reasons: Secured Area Extensive deterioration

Bldg. 408
Pt. Arena AF Station
Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200820023
Status: Excess
Reasons: Secured Area Extensive deterioration

Bldgs. 601 thru 610
Pt. Arena AF Station
Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200820024
Status: Excess
Reasons: Secured Area Extensive deterioration

Bldgs. 611–619
Pt. Arena AF Station
Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200820025
Status: Excess
Reasons: Secured Area Extensive deterioration

Bldgs. 620 thru 627
Pt. Arena AF Station
Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200820026
Status: Excess
Reasons: Secured Area Extensive deterioration

Bldgs. 654, 655, 690
Pt. Arena AF Station
Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200820027
Status: Excess
Reasons: Secured Area Extensive deterioration

Bldgs. 300, 387
Pt. Arena Comm Annex
Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200820029
Status: Excess
Reasons: Secured Area Extensive deterioration

Bldgs. 700, 707, 796, 797
Pt. Arena Comm Annex
Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200820030
Status: Excess
Reasons: Secured Area Extensive deterioration

Bldgs. 748, 838
Vandenberg AFB
Vandenberg CA 93437
Landholding Agency: Air Force
Property Number: 18200820033
Status: Unutilized
Reasons: Secured Area

Bldgs. 1412, 2422, 3514
Edwards AFB
Kern CA 93524
Landholding Agency: Air Force
Property Number: 18200840001
Status: Unutilized
Reasons: Secured Area Extensive deterioration

Bldg. 417
Fort MacArthur
Fort MacArthur CA
Landholding Agency: Air Force
Property Number: 18200920003
Status: Unutilized
Reasons: Secured Area Extensive deterioration

6 Bldgs.
Beale AFB
Beale AFB CA 95903
Landholding Agency: Air Force
Property Number: 18200930001
Status: Unutilized
Directions: 355, 421, 1062, 1088, 1250, 1280
Reasons: Extensive deterioration

7 Bldgs.
Beale AFB
Beale AFB CA 95903
Landholding Agency: Air Force
Property Number: 18200930002
Status: Unutilized
Directions: 2160, 2171, 2340, 2432, 2491, 2560, 5800
Reasons: Extensive deterioration

5 Bldgs.
Edwards AFB
Kern CA 93523
Landholding Agency: Air Force
Property Number: 18200930003
Status: Unutilized
Directions: 3505, 601, 225, 4700, 4222
Reasons: Secured Area

5 Bldgs.
Edwards AFB
Los Angeles CA 93524
Landholding Agency: Air Force
Property Number: 18200940002
Status: Unutilized
Directions: 50, 5510, 7161, 7163, 7184
Reasons: Secured Area

8 Bldgs.
Vandenberg AFB
Santa Barbara CA 93437
Landholding Agency: Air Force
Property Number: 18200940003
Status: Unutilized
Directions: 182, 575, 578, 580, 582, 583, 584, 589
Reasons: Secured Area Extensive deterioration

4 Bldgs.
Vandenberg AFB
Santa Barbara CA 93437
Landholding Agency: Air Force
Property Number: 18200940004
Status: Unutilized
Directions: 590, 596, 598, 599
Reasons: Secured Area Extensive deterioration

5 Bldgs.
Vandenberg AFB
Santa Barbara CA 93437
Landholding Agency: Air Force
Property Number: 18200940005
Status: Unutilized
Directions: 708, 742, 955, 1836, 13403
Reasons: Secured Area Extensive deterioration

14 Bldgs.
Beale AFB
Beale AFB CA 95903
Landholding Agency: Air Force
Property Number: 18200940006
Status: Unutilized
Directions: 4158, 3936, 3942, 3947, 4314, 4318, 4256, 4120, 4103, 3871, 3873, 3887, 3919, 4133
Reasons: Extensive deterioration

Bldgs. 4320, 800
Beale AFB
Beale AFB CA 95903
Landholding Agency: Air Force
Property Number: 18200940007
Status: Unutilized
Reasons: Extensive deterioration

4 Bldgs.
Beale AFB
Beale AFB CA 95903
Landholding Agency: Air Force
Property Number: 18200940008
Status: Unutilized
Directions: 4136, 5223, 5228, 5278
Reasons: Extensive deterioration

4 Bldgs.
Vandenberg AFB
Vandenberg CA 93437
Landholding Agency: Air Force
Property Number: 18201010002
Status: Unutilized
Directions: 1892, 9340, 13400, 21110
Reasons: Secured Area

10 Bldgs.
Edwards AFB
Los Angeles CA 93524
Landholding Agency: Air Force
Property Number: 18201010003
Status: Unutilized
Directions: 4259, 8374, 8647, 8665, 8785, 1005, 1423, 1725, 4233, 9650
Reasons: Secured Area

Bldgs. 1154, 2459, 5114
Beale AFB
Beale CA 95903
Landholding Agency: Air Force
Property Number: 18201010004
Status: Unutilized
Reasons: Extensive deterioration

32 Structures
National Park Service
Redwood
Klamath CA 95548
Landholding Agency: Interior
Property Number: 61201010005
Status: Excess
Directions: 4112, 4310, 4313, 4311A, 4311B, 4312A, 4312B, 4100, 4101, 4107, 4109, 4110, 4118, 4120, 4150, 4198, 4200, 4201, 4202, 4208, 4210, 4212, 4213, 4214, 4217, 4218, 4300, 4301, 4302, 4303, 4304, 4400, 4121
Reasons: Extensive deterioration

12 Bldgs.
Inverness Park
Olema CA
Landholding Agency: Interior
Property Number: 61201010006
Status: Unutilized
Directions: 227840, 555, 556, 97165, 97166, 97167, 97168, 116003, 116004, 116005, 116006, 116007
Reasons: Extensive deterioration

Bldg. 4
Naval Base Coronado
San Diego CA
Landholding Agency: Navy
Property Number: 77201010019
Status: Unutilized
Reasons: Secured Area

Bldgs. X, 35, 384, 1209
Naval Base Coronado
San Diego CA
Landholding Agency: Navy
Property Number: 77201010020
Status: Underutilized
Reasons: Secured Area

Bldg. 19
USCG Integrated Sup Comm
San Pedro CA 90731
Landholding Agency: Coast Guard
Property Number: 88200820004
Status: Unutilized
Reasons: Extensive deterioration

Colorado

Bldg. 9038
U.S. Air Force Academy
El Paso CO 80840
Landholding Agency: Air Force
Property Number: 18200920004
Status: Unutilized
Reasons: Extensive deterioration

Bldgs. 1166, 1435
Peterson AFB
Colorado Springs CO 80914
Landholding Agency: Air Force
Property Number: 18200930004
Status: Unutilized
Reasons: Secured Area

Bldg. 6980
U.S. Air Force Academy
El Paso CO 80840
Landholding Agency: Air Force
Property Number: 18200940009
Status: Unutilized
Reasons: Secured Area

Bldgs. 6966, 6968, 6930, 6932
USAF Academy
El Paso CO 80840
Landholding Agency: Air Force
Property Number: 18201010005
Status: Unutilized
Reasons: Secured Area

Connecticut

Boathouse
USCG Academy
New London CT 06320
Landholding Agency: Coast Guard
Property Number: 88200930001
Status: Unutilized
Reasons: Secured Area Extensive deterioration

Florida

Bldg. 82
Air Force Range
Avon Park FL 33825
Landholding Agency: Air Force
Property Number: 18200840002
Status: Unutilized
Reasons: Contamination Secured Area

Bldg. 202
Avon Park AF Range
Polk FL 33825
Landholding Agency: Air Force
Property Number: 18200930005
Status: Unutilized
Reasons: Extensive deterioration

Facility 47120
Cape Canaveral AFB
Brevard FL 32925
Landholding Agency: Air Force
Property Number: 18200940010
Status: Unutilized
Reasons: Secured Area

15 Bldgs.
Tyndall AFB
Bay FL 32403
Landholding Agency: Air Force
Property Number: 18201010006
Status: Unutilized
Directions: 129, 131, 138, 153, 156, 419, 743, 745, 1003, 1269, 1354, 1355, 1506, 6063, 6067
Reasons: Secured Area

4 Bldgs.
Cape Canaveral AFS
Brevard FL 32925
Landholding Agency: Air Force
Property Number: 18201010007
Status: Unutilized
Directions: 56621, 56629, 56632, 67901
Reasons: Secured Area

Georgia

6 Cabins
QSRG Grassy Pond Rec Annex
Lake Park GA 31636
Landholding Agency: Air Force
Property Number: 18200730004
Status: Unutilized
Reasons: Extensive deterioration

Bldgs. 101, 102, 103
Moody AFB
Lowndes GA 31699
Landholding Agency: Air Force
Property Number: 18200810006
Status: Excess
Reasons: Extensive deterioration

Bldgs. 330, 331, 332, 333
Moody AFB
Lowndes GA 31699
Landholding Agency: Air Force
Property Number: 18200810007
Status: Excess
Reasons: Extensive deterioration

Bldgs. 794, 1541
Moody AFB
Lowndes GA
Landholding Agency: Air Force
Property Number: 18200820012
Status: Unutilized
Reasons: Secured Area

Bldg. 970
Moody AFB
Lowndes GA 31699
Landholding Agency: Air Force
Property Number: 18200840003
Status: Unutilized
Reasons: Secured Area

Bldg. 205
Moody AFB
Lowndes GA 31699
Landholding Agency: Air Force
Property Number: 18200920005
Status: Unutilized
Reasons: Secured Area Extensive deterioration

Bldgs. 104, 118, 739, 742, 973
Moody AFB
Lowndes GA 31699
Landholding Agency: Air Force
Property Number: 18200920016
Status: Unutilized
Reasons: Secured Area Extensive deterioration

Bldgs. 134, 804, 841, 978
Moody AFB
Moody AFB GA 31699
Landholding Agency: Air Force
Property Number: 18201010008
Status: Underutilized
Reasons: Secured Area

Guam

Bldg. 1094
AAFB Yigo
Yigo GU 96543
Landholding Agency: Air Force
Property Number: 18200830007
Status: Unutilized
Reasons: Extensive deterioration

15 Bldgs.
Andersen AFB
Yigo GU 96543
Landholding Agency: Air Force
Property Number: 18200920006
Status: Excess
Reasons: Secured Area

Bldgs. 72, 73, 74
Andersen AFB
Mount Santa Rosa GU
Landholding Agency: Air Force
Property Number: 18200920017
Status: Excess
Reasons: Extensive deterioration Secured Area

Bldgs. 101, 102
Andersen AFB
Pots Junction GU
Landholding Agency: Air Force
Property Number: 18200920018
Status: Excess
Reasons: Extensive deterioration

Hawaii

Bldg. 1815
Hickam AFB
Hickam HI 96853
Landholding Agency: Air Force
Property Number: 18200730005
Status: Unutilized
Reasons: Extensive deterioration

Bldgs. 1028, 1029
Hickam AFB
Hickam HI 96853
Landholding Agency: Air Force
Property Number: 18200740006
Status: Unutilized
Reasons: Secured Area

Bldgs. 1710, 1711
Hickam AFB
Hickam HI 96853
Landholding Agency: Air Force
Property Number: 18200740007
Status: Unutilized
Reasons: Secured Area

Bldg. 1713
Hickam AFB
Hickam HI
Landholding Agency: Air Force
Property Number: 18200830008
Status: Unutilized
Reasons: Extensive deterioration

Bldg. 1843
Hickam AFB
Hickam HI 96853
Landholding Agency: Air Force
Property Number: 18200920019
Status: Unutilized
Reasons: Extensive deterioration

Bldg. 1716
RPUID
Wake Island HI
Landholding Agency: Air Force
Property Number: 18201010009
Status: Unutilized
Reasons: Secured Area Extensive deterioration

Bldg. 12
Kokee AFS
Waimea HI
Landholding Agency: Air Force
Property Number: 18201010010
Status: Unutilized
Reasons: Extensive deterioration

Bldg. 501
Hickam AFB
Hickam HI
Landholding Agency: Air Force
Property Number: 18201010011
Status: Unutilized
Reasons: Secured Area

6 Bldgs.
Kaena Point Satellite
Tracking Station
Honolulu HI
Landholding Agency: Air Force
Property Number: 18201010012
Status: Excess
Directions: 16, 18, 20, 21, 32, 33
Reasons: Extensive deterioration

Kauhola Point Lighthouse
Kauhola Point HI
Landholding Agency: Coast Guard
Property Number: 88200940001
Status: Unutilized
Reasons: Extensive deterioration

Illinois

Bldgs. OB1, OB2, OM2
U.S. Coast Guard Station
Calumet Harbor
Chicago IL 60617
Landholding Agency: Coast Guard
Property Number: 88200940005
Status: Excess
Reasons: Secured Area Extensive deterioration

Indiana

Bldg. 103
Grissom AFB
Peru IN 46970
Landholding Agency: Air Force
Property Number: 18200940011
Status: Excess
Reasons: Within 2000 ft. of flammable or explosive material

Louisiana

Barksdale Middle Marker
Bossier LA 71112
Landholding Agency: Air Force
Property Number: 18200730006
Status: Excess
Reasons: Extensive deterioration

Maine

Facilities 1, 2, 3, 4
OTH–B Site
Moscow ME 04920
Landholding Agency: Air Force
Property Number: 18200730007
Status: Unutilized
Reasons: Within 2000 ft. of flammable or explosive material

Maryland

6 Bldgs.
Naval Support Facility
Indian Head MD 20640
Landholding Agency: Navy
Property Number: 77201010021
Status: Underutilized
Directions: 83, 111, 113, 115, 116, 117
Reasons: Secured Area

8 Bldgs.
Naval Support Facility
Indian Head MD 20640
Landholding Agency: Navy
Property Number: 77201010022
Status: Underutilized
Directions: 185, 268, 289, 314, 314A, 351, 376, 377B
Reasons: Secured Area

11 Bldgs.
Naval Support Facility
Indian Head MD 20640
Landholding Agency: Navy
Property Number: 77201010023
Status: Underutilized
Directions: 435, 490, 503, 510, 521, 546, 546A, 551, 627, 639, 658
Reasons: Secured Area

12 Bldgs.
Naval Support Facility
Indian Head MD 20640
Landholding Agency: Navy
Property Number: 77201010024
Status: Underutilized
Directions: 700, 870, 1406, 1407, 1489, 1732, 1753, 1800, 1905, 1919, 1979, 3034
Reasons: Secured Area

Bldg. 155
Natl Naval Medical Center
Bethesda MD 20889
Landholding Agency: Navy
Property Number: 77201010026
Status: Unutilized
Reasons: Secured Area

Massachusetts

10 Bldgs.
North Truro Air Force Station
Truro MA 02666
Landholding Agency: GSA
Property Number: 54201010015
Status: Excess
GSA Number: 1–I–MA–00007S
Directions: 19, 101, 102, 103, 104, 105, 106, 107, 108, 109
Reasons: Extensive deterioration

10 Bldgs., Tract 16–2504
Air Force Station
Truro MA
Landholding Agency: Interior
Property Number: 61201010007
Status: Excess
Directions: 19, 101, 102, 103, 104, 105, 106, 107, 108, 109
Reasons: Extensive deterioration

Bldg. 5202
USCG Air Station
Bourne MA 02540
Landholding Agency: Coast Guard
Property Number: 88200810002
Status: Unutilized
Reasons: Extensive deterioration Secured Area

3 Sheds
USCG Sector Southeastern
Falmouth MA 02543
Landholding Agency: Coast Guard
Property Number: 88200910001
Status: Unutilized
Reasons: Secured Area Extensive deterioration

5 Bldgs.
USCG Air Station
3434, 3435, 3436, 5424, 5451
Bourne MA 02542
Landholding Agency: Coast Guard
Property Number: 88200920002
Status: Excess
Reasons: Extensive deterioration Secured Area

Michigan

Admin. Bldg.
Station Saginaw River
Essexville Co: Bay MI 48732
Landholding Agency: Coast Guard
Property Number: 88200510001
Status: Unutilized
Reasons: Secured Area Extensive deterioration

Bldg. 001
USCG Sector
Sault Ste Marie MI 49783
Landholding Agency: Coast Guard
Property Number: 88200920003
Status: Unutilized
Reasons: Secured Area

Bldg. 022
U.S. Coast Guard Station
Marquette MI 49855
Landholding Agency: Coast Guard
Property Number: 88200920004
Status: Excess
Reasons: Secured Area

Montana

Bldgs. 1600, 1601
Malmstrom AFB
Cascade MT 59402
Landholding Agency: Air Force
Property Number: 18200920020
Status: Unutilized

Reasons: Within 2000 ft. of flammable or explosive material Secured Area Extensive deterioration

Nevada

Bldg. 33400
Ely
Ely NV 89301
Landholding Agency: Air Force
Property Number: 18200820014
Status: Unutilized
Reasons: Extensive deterioration Secured Area

New Hampshire

Bldg. 152
Pease Internatl Tradeport
Newington NH 03803
Landholding Agency: Air Force
Property Number: 18200920007
Status: Unutilized
Reasons: Within 2000 ft. of flammable or explosive material Secured Area

Bldg. 16
Pease Internatl Tradeport
Newington NH 03803
Landholding Agency: Air Force
Property Number: 18200930006
Status: Excess
Reasons: Within 2000 ft. of flammable or explosive material

5 Structures
Portsmouth Naval Shipyard
Portsmouth NH
Landholding Agency: Navy
Property Number: 77201010027
Status: Excess
Directions: Berths 15–16, 15, 176, 202
Reasons: Secured Area

New Jersey

Bldgs. 2609, 2611
Joint Base
McGuire NJ
Landholding Agency: Air Force
Property Number: 18201010013
Status: Unutilized
Reasons: Extensive deterioration

Bldg. RPFN OM1
U.S. Coast Guard Station
Fortescue NJ 08321
Landholding Agency: Coast Guard
Property Number: 88200940004
Status: Unutilized
Reasons: Extensive deterioration

New Mexico

Bldg. 1016
Kirtland AFB
Bernalillo NM 87117
Landholding Agency: Air Force
Property Number: 18200730008
Status: Unutilized
Reasons: Within 2000 ft. of flammable or explosive material Extensive deterioration Secured Area

Bldgs. 40, 841
Holloman AFB
Otero NM 88330
Landholding Agency: Air Force
Property Number: 18200820016
Status: Underutilized
Reasons: Secured Area

Bldgs. 436, 437
Kirtland AFB
Bernalillo NM 87117
Landholding Agency: Air Force
Property Number: 18200820017
Status: Underutilized
Reasons: Secured Area Within 2000 ft. of flammable or explosive material

Bldgs. 20612, 29071, 37505
Kirtland AFB
Bernalillo NM 87117
Landholding Agency: Air Force
Property Number: 18200830010
Status: Unutilized
Reasons: Secured Area

Bldgs. 88, 89
Holloman AFB
Otero NM 88330
Landholding Agency: Air Force
Property Number: 18200830020
Status: Unutilized
Reasons: Secured Area Extensive deterioration Within 2000 ft. of flammable or explosive material

Bldgs. 312, 322
Holloman AFB
Otero NM 88330
Landholding Agency: Air Force
Property Number: 18200830021
Status: Unutilized
Reasons: Secured Area

Bldg. 569
Holloman AFB
Otero NM 88330
Landholding Agency: Air Force
Property Number: 18200830022
Status: Unutilized
Reasons: Within 2000 ft. of flammable or explosive material Secured Area

Bldgs. 807, 833
Holloman AFB
Otero NM 88330
Landholding Agency: Air Force
Property Number: 18200830023
Status: Unutilized
Reasons: Secured Area Within 2000 ft. of flammable or explosive material

Bldg. 1245
Holloman AFB
Otero NM 88330
Landholding Agency: Air Force
Property Number: 18200830024
Status: Unutilized
Reasons: Secured Area

5 Bldgs.
Holloman AFB
Otero NM 88330
Landholding Agency: Air Force
Property Number: 18200840004
Status: Unutilized
Directions: 1201, 1202, 1203, 1205, 1207
Reasons: Secured Area

5 Bldgs.
Holloman AFB
Otero NM 88330
Landholding Agency: Air Force
Property Number: 18200920008
Status: Unutilized
Directions: 71, 1187, 1200, 1284, 1285
Reasons: Secured Area

6 Bldgs.
Holloman AFB
Holloman AFB NM
Landholding Agency: Air Force
Property Number: 18200930007
Status: Unutilized
Directions: 920, 921, 922, 923, 924, 930
Reasons: Secured Area

Bldgs. 1113, 1127
Holloman AFB
Holloman AFB NM
Landholding Agency: Air Force
Property Number: 18200930008
Status: Unutilized
Reasons: Secured Area

New Mexico

Bldg. 30143
Kirtland, AFB
Bernalillo NM 87117
Landholding Agency: Air Force
Property Number: 18200930009
Status: Excess
Reasons: Secured Area Extensive deterioration Within 2000 ft. of flammable or explosive material

Bldg. 1267, 1620
Holloman AFB
Otero, NM 88330
Landholding Agency: Air Force
Property Number: 18200940013
Status: Unutilized
Reasons: Secured Area

Bldgs. 214, 851, 1199
Holloman AFB
Holloman AFB, NM 88330
Landholding Agency: Air Force
Property Number: 18201010014
Status: Underutilized
Reasons: Secured Area

New York

Bldg. 13
USCG Staten Island
Suffolk, NY 10305
Landholding Agency: Coast Guard
Property Number: 88200910002
Status: Excess
Reasons: Secured Area Extensive deterioration

Boat House
USCG Station Eaton's Neck
Northport, NY 11768
Landholding Agency: Coast Guard
Property Number: 88200920005
Status: Unutilized
Reasons: Extensive deterioration Secured Area

North Carolina

4 Bldgs., Tract 01–129
National Military Park
Greensboro, NC 27410
Landholding Agency: Interior
Property Number: 61201010008
Status: Excess
Reasons: Extensive deterioration

3 Bldgs., Tract 01–133
National Military Park
Greensboro, NC 27410
Landholding Agency: Interior
Property Number: 61201010009
Status: Excess
Reasons: Extensive deterioration

2 Bldgs., Tract 01–135
National Military Park
Greensboro, NC 27410
Landholding Agency: Interior
Property Number: 61201010010
Status: Excess
Reasons: Extensive deterioration

House 123, Tract 01–137

National Military Park
Greensboro, NC 27410
Landholding Agency: Interior
Property Number: 61201010011
Status: Excess
Reasons: Extensive deterioration

RPFN 0S1
Group Cape Hatteras
Buxton Co: Dare NC 27902
Landholding Agency: Coast Guard
Property Number: 88200540001
Status: Unutilized
Reasons: Extensive deterioration Secured Area

RPFN 053
Sector N.C.
Atlantic Beach Co: Carteret, NC 28512
Landholding Agency: Coast Guard
Property Number: 88200540002
Status: Unutilized
Reasons: Secured Area Extensive deterioration

Equip. Bldg.
Coast Guard Station
11101 Station St. Emerald Isle, NC
Landholding Agency: Coast Guard
Property Number: 88200630001
Status: Unutilized
Reasons: Secured Area

Sewage Treatment Facility
USCG Cape Hatteras
Buxton, NC 27902
Landholding Agency: Coast Guard
Property Number: 88200920006
Status: Unutilized
Reasons: Secured Area

Bldgs. GH1, FA1
U.S. Coast Guard Station
Hatteras, NC 27943
Landholding Agency: Coast Guard
Property Number: 88200940003
Status: Unutilized
Reasons: Extensive deterioration

North Dakota

Bldgs. 1612, 1741
Grand Forks AFB
Grand Forks, ND 58205
Landholding Agency: Air Force
Property Number: 18200720023
Status: Unutilized
Reasons: Within 2000 ft. of flammable or explosive material Secured Area

Ohio

Naval Reserve Center
Cleveland, OH 44114
Landholding Agency: Coast Guard
Property Number: 88200740002
Status: Unutilized
Reasons: Within 2000 ft. of flammable or explosive material Within airport runway clear zone Secured Area

Oklahoma

Bldg. 193
Vance AFB
Vance, OK 73705
Landholding Agency: Air Force
Property Number: 18201010015
Status: Excess
Reasons: Secured Area

Oregon

Bldg. 1001
ANG Base
Portland, OR 97218
Landholding Agency: Air Force
Property Number: 18200820018
Status: Underutilized
Reasons: Secured Area Within 2000 ft. of flammable or explosive material

Paint Locker
USCG Elect. Sup. Detmt.
Coos Bay, OR
Landholding Agency: Coast Guard
Property Number: 88200920007
Status: Unutilized
Reasons: Secured Area

South Carolina

Bldgs. 19, 20, 23
Shaw AFB
Sumter SC 29152
Landholding Agency: Air Force
Property Number: 18200730009
Status: Underutilized
Reasons: Secured Area

Bldgs. 27, 28, 29
Shaw AFB
Sumter SC 29152
Landholding Agency: Air Force
Property Number: 18200730010
Status: Underutilized
Reasons: Secured Area

Bldgs. 30, 39
Shaw AFB
Sumter SC 29152
Landholding Agency: Air Force
Property Number: 18200730011
Status: Underutilized
Reasons: Secured Area

8 Bldgs.
Shaw AFB
Sumter SC 29152
Landholding Agency: Air Force
Property Number: 18200920021
Status: Unutilized
Directions: B14, B22, B31, B116, B218, B232, B343, B3403
Reasons: Secured Area

Bldg. B1626
Shaw AFB
Sumter SC 29152
Landholding Agency: Air Force
Property Number: 18200930010
Status: Unutilized
Reasons: Within 2000 ft. of flammable or explosive material Secured Area

10 Bldgs.
Shaw AFB
Sumter SC 29152
Landholding Agency: Air Force
Property Number: 18200940014
Status: Unutilized
Directions: B16, B34, B122, B219, B220, B221, B403, B418, B428, B430
Reasons: Secured Area

5 Bldgs.
Shaw AFB
Sumter SC 29152
Landholding Agency: Air Force
Property Number: 18200940015
Status: Unutilized
Directions: B800, B900, B911, B1040, B1041
Reasons: Secured Area

7 Bldgs.
Shaw AFB
Sumber SC 29152
Landholding Agency: Air Force
Property Number: 18200940016
Status: Unutilized
Directions: B1702, B1707, B1708, B1804, B1813, B1907, B5226
Reasons: Secured Area

South Dakota

Bldg. 2306
Ellsworth AFB
Meade SD 57706
Landholding Agency: Air Force
Property Number: 18200740008
Status: Underutilized
Reasons: Secured Area Within 2000 ft. of flammable or explosive material

Bldg. 6927
Ellsworth AFB
Meade SD 57706
Landholding Agency: Air Force
Property Number: 18200830011
Status: Unutilized
Reasons: Within 2000 ft. of flammable or explosive material Secured Area

Texas

Bldg. 1001
FNXC, Dyess AFB
Tye Co: Taylor TX 79563
Landholding Agency: Air Force
Property Number: 18200810008
Status: Unutilized
Reasons: Extensive deterioration

5 Bldgs.
Dyess AFB
Abilene TX 79607
Landholding Agency: Air Force
Property Number: 18200840005
Status: Unutilized
Directions: B–4003, 4120, B–4124, 4127, 4130
Reasons: Secured Area

4 Bldgs.
Dyess AFB
Abilene TX 79607
Landholding Agency: Air Force
Property Number: 18200840006
Status: Unutilized
Directions: 7225, 7226, 7227, 7313
Reasons: Secured Area

4 Bldgs.
Dyess AFB
Abilene TX 79607
Landholding Agency: Air Force
Property Number: 18200840007
Status: Unutilized
Directions: 8050, 8054, 8129, 8133
Reasons: Secured Area

5 Bldgs.
Dyess AFB
Abilene TX 79607
Landholding Agency: Air Force
Property Number: 18200840008
Status: Unutilized
Directions: B–9032, 9107, 9114, B–9140, 11900
Reasons: Secured Area

Bldg. B–4228
FNWZ Dyess AFB
Taylor TX 79607
Landholding Agency: Air Force
Property Number: 18200920009
Status: Unutilized
Reasons: Secured Area

Bldgs. B–3701, B–3702 FNWZ Dyess AFB
Pecos TX 79772
Landholding Agency: Air Force

Property Number: 18200920010
Status: Unutilized
Reasons: Secured Area

Bldgs. 1, 2, 3, 4
Tethered Aerostat Radar Site
Matagorda TX 77457
Landholding Agency: Air Force
Property Number: 18200920023
Status: Excess
Reasons: Secured Area

Bldg. 154
Goodfellow AFB
Goodfellow TX 76908
Landholding Agency: Air Force
Property Number: 18200920024
Status: Unutilized
Reasons: Secured Area

Bldg. FNXH 2001
Dyess AFB
Dyess AFB TX 79607
Landholding Agency: Air Force
Property Number: 18200930011
Status: Unutilized
Reasons: Secured Area Within 2000 ft. of flammable or explosive material

6 Bldgs.
Dyess AFB
Dyess AFB TX 79607
Landholding Agency: Air Force
Property Number: 18200930013
Status: Unutilized
Directions: FNWZ 7235, 7312, 7405, 8045, 8120, 9113
Reasons: Secured Area

4 Bldgs.
Dyess AFB
Dyess AFB TX
Landholding Agency: Air Force
Property Number: 18200940017
Status: Unutilized
Directions: FNWZ 5017, 5305, 6015, 6122
Reasons: Secured Area
Bldg. 351
Laughlin AFB
Del Rio TX 78840
Landholding Agency: Air Force
Property Number: 18201010016
Status: Unutilized
Reasons: Secured Area

Bldgs. 112, 113, 141, 741
Goodfellow AFB
Goodfellow TX 76908
Landholding Agency: Air Force
Property Number: 18201010017
Status: Excess
Reasons: Secured Area

12 Bldgs
Langley AFB
Langley VA 23665
Landholding Agency: Air Force
Property Number: 18200920012
Status: Unutilized
Directions: 35, 36, 903, 905, 1013, 1020, 1033, 1050, 1066, 1067, 1069, 1075
Reasons: Floodway Secured Area
Bldgs. 38, 52
Langley AFB
Langley VA 23665
Landholding Agency: Air Force
Property Number: 18201010018
Status: Unutilized
Reasons: Extensive deterioration Secured Area

Bldg. 542
Joint Expeditionary Base
Little Creek
Virginia Beach VA
Landholding Agency: Navy
Property Number: 77201010028
Status: Unutilized
Reasons: Secured Area Extensive deterioration

16 Structures
Joint Expeditionary Base
Little Creek
Virginia Beach VA
Landholding Agency: Navy
Property Number: 77201010029
Status: Unutilized
Directions: U83, U88–U94, U97, U101–U105, #1, #2
Reasons: Secured Area Extensive deterioration

Bldg. 2012
Marine Corps Base
Quantico VA 22134
Landholding Agency: Navy
Property Number: 77201010030
Status: Unutilized
Reasons: Extensive deterioration

Training Bldg.
USCG Integrated Support Ctr
Portsmouth Co: Norfolk VA 43703
Landholding Agency: Coast Guard
Property Number: 88200530001
Status: Excess
Reasons: Secured Area

Bldg. 011
Integrated Support Center
Portsmouth Co: Norfolk VA 43703
Landholding Agency: Coast Guard
Property Number: 88200620002
Status: Excess
Reasons: Secured Area

9 Bldgs.
USCG Cape Charles Station
Winters Quarters
Northampton VA 23310
Landholding Agency: Coast Guard
Property Number: 88200740001
Status: Unutilized
Reasons: Extensive deterioration

Virginia

Navigation Center Trailer
USCG TISCOM
Alexandria VA 22315
Landholding Agency: Coast Guard
Property Number: 88200820003
Status: Excess
Reasons: Secured Area

Washington

Defense Fuel Supply Point
18 structures/21 acres
Mukilteo WA
Landholding Agency: Air Force
Property Number: 18200910001
Status: Unutilized
Reasons: Extensive deterioration

Admiral's House 8620 NE 26th Pl
Clyde Hill WA 98004
Landholding Agency: GSA
Property Number: 54201010016
Status: Excess
GSA Number: 10–D–WA–1250AA Reasons: Extensive deterioration Other -mold

West Virginia

Bldgs. 102, 106, 111 Air National Guard
Martinsburg WV 25405
Landholding Agency: Air Force
Property Number: 18200920013
Status: Unutilized
Reasons: Within 2000 ft. of flammable or explosive material Secured Area

Bldgs. 101, 110
Air National Guard
Martinsburg WV 25405
Landholding Agency: Air Force
Property Number: 18200940018
Status: Unutilized
Reasons: Secured Area Within 2000 ft. of flammable or explosive material

Bldg. 88A
Navy Information
Operations Command
Sugar Grove WV 26815
Landholding Agency: Navy
Property Number: 77201010031
Status: Excess
Reasons: Secured Area

Wisconsin

Federal Building
68 South Stevens St.
Rhinelander WI 54501
Landholding Agency: GSA
Property Number: 54201010017
Status: Excess
GSA Number: 1–G–WI–609
Reasons: Within 2000 ft. of flammable or explosive material

Bldg. OV1
USCG Station
Bayfield WI 54814
Landholding Agency: Coast Guard
Property Number: 88200620001
Status: Excess
Reasons: Secured Area

Wyoming

Bldg. 00012
Cheyenne RAP
Laramie WY 82009
Landholding Agency: Air Force
Property Number: 18200730013
Status: Unutilized
Reasons: Extensive deterioration Secured Area Within 2000 ft. of flammable or explosive material

Unsuitable Properties

Land

California

Facilities 99001 thru 99006
Pt Arena AF Station
Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200820028
Status: Excess
Reasons: Secured Area

7 Facilities
Pt. Arena Comm Annex
Mendocino CA 95468
Landholding Agency: Air Force
Property Number: 18200820031
Status: Excess
Directions: 99001, 99003, 99004, 99005, 99006, 99007, 99008
Reasons: Secured Area

Facilities 99002 thru 99014
Pt. Arena Water Sys Annex
Mendocino CA 95468
Landholding Agency: Air Force

Property Number: 18200820032
Status: Excess
Reasons: Secured Area

Florida

Defense Fuel Supply Point
Lynn Haven FL 32444
Landholding Agency: Air Force
Property Number: 18200740009
Status: Excess
Reasons: Floodway

Indiana

1.059 acres
Grissom AFB
Peru IN 46970
Landholding Agency: Air Force
Property Number: 18200940012
Status: Excess
Reasons: Within 2000 ft. of flammable or explosive material

Maryland

Site A: 16.1 acres
Naval Support Facility
Indian Head MD 20640
Landholding Agency: Navy
Property Number: 77201010025
Status: Underutilized
Reasons: Secured Area

Texas

Rattlesnake ESS
FNWZ, Dyess AFB
Pecos TX 79772
Landholding Agency: Air Force
Property Number: 18200920011
Status: Unutilized
Reasons: Secured Area

24 acres
Tethered Aerostate Radar Site
Matagorda TX 77457
Landholding Agency: Air Force
Property Number: 18200920022
Status: Excess
Reasons: Secured Area

FNXH 99100
Dyess AFB
Dyess AFB TX 79607
Landholding Agency: Air Force
Property Number: 18200930012
Status: Unutilized
Reasons: Within 2000 ft. of flammable or explosive material

2.43 acre/0.36 acre
Dyess AFB
Dyess AFB TX 79563
Landholding Agency: Air Force
Property Number: 18200930014
Status: Unutilized
Directions: FNXL 99104, 99108, 99110, 99112
FNXM 99102, 99103, 99108
Reasons: Within airport runway clear zone

[FR Doc. 2010–6342 Filed 3–25–10; 8:45 am]

BILLING CODE 4210–67–P

DEPARTMENT OF THE INTERIOR

Office of the Secretary

Exxon Valdez Oil Spill Trustee Council; Notice of Meeting

AGENCY: Office of the Secretary, Department of the Interior.

ACTION: Notice of meeting.

SUMMARY: The Department of the Interior, Office of the Secretary is announcing a public meeting of the *Exxon Valdez* Oil Spill Public Advisory Committee.

DATES: April 19, 2010, at 10 a.m.

ADDRESSES: Exxon Valdez Oil Spill Trustee Council Office, 441 West 5th Avenue, Suite 500, Anchorage, Alaska.

FOR FURTHER INFORMATION CONTACT: Douglas Mutter, Department of the Interior, Office of Environmental Policy and Compliance, 1689 "C" Street, Suite 119, Anchorage, Alaska 99501, (907) 271–5011.

SUPPLEMENTARY INFORMATION: The Public Advisory Committee was created by Paragraph V.A.4 of the Memorandum of Agreement and Consent Decree entered into by the United States of America and the State of Alaska on August 27, 1991, and approved by the United States District Court for the District of Alaska in settlement of *United States of America* v. *State of Alaska,* Civil Action No. A91–081 CV. The meeting agenda will include discussions on the Trustee Council's National Environmental Policy Act process, the Integrated Herring Restoration Plan, the Invitation for Fiscal Year 2012 project proposals, and revisions to the injured resources and services list.

Willie R. Taylor,

Director, Office of Environmental Policy and Compliance.

[FR Doc. 2010–6684 Filed 3–25–10; 8:45 am]

BILLING CODE 4310–RG–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLWO620000.L18200000.XH0000]

Call for Nominations for Resource Advisory Councils

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of Resource Advisory Council Call for Nominations.

SUMMARY: The purpose of this notice is to request public nominations for the Bureau of Land Management (BLM) Resource Advisory Councils (RACs) that have member terms expiring this year. The RACs provide advice and recommendations to the BLM on land use planning and management of the National System of Public Lands within their geographic areas. The BLM will accept public nominations for 45 days after the publication of this notice.

DATES: All nominations must be received no later than May 10, 2010.

ADDRESSES: See **SUPPLEMENTARY INFORMATION** for the address of BLM State Offices accepting nominations.

FOR FURTHER INFORMATION CONTACT: Allison Sandoval, U.S. Department of the Interior, Bureau of Land Management, Correspondence, International, and Advisory Committee Office, 1849 C Street, NW., MS–401 LS, Washington, DC 20240; 202–912–7434.

SUPPLEMENTARY INFORMATION: The Federal Land Policy and Management Act (FLPMA) (43 U.S.C. 1739) directs the Secretary of the Interior to involve the public in planning and issues related to management of lands administered by the BLM. Section 309 of FLPMA directs the Secretary to establish 10- to 15-member citizen-based advisory councils that are consistent with the Federal Advisory Committee Act (FACA). The rules governing RACs are found at 43 CFR subpart 1784. As required by FACA, RAC membership must be balanced and representative of the various interests concerned with the management of the public lands. These include three categories:

Category One—Holders of Federal grazing permits and representatives of organizations associated with energy and mineral development, timber industry, transportation or rights-of-way, developed outdoor recreation, off-highway vehicle use, and commercial recreation;

Category Two—Representatives of nationally or regionally recognized environmental organizations, archaeological and historic organizations, dispersed recreation activities, and wild horse and burro organizations, and;

Category Three—Representatives of state, county, or local elected office; representatives and employees of a state agency responsible for management of natural resources; representatives of Indian tribes within or adjacent to the area for which the council is organized; representatives of academia who are employed in natural sciences; and the public-at-large. Individuals may nominate themselves or others. Nominees must be residents of the state in which the RAC has jurisdiction. The BLM will evaluate nominees based on their education, training, experience, and knowledge of the geographical area of the RAC. Nominees should demonstrate a commitment to collaborative resource decision-making. The Obama Administration prohibits individuals who are currently federally registered lobbyists to serve on all

FACA and non-FACA boards, committees, or councils. The following must accompany all nominations:

—Letters of reference from represented interests or organizations;
—A completed background information nomination form; and
—Any other information that addresses the nominee's qualifications.

Simultaneous with this notice, BLM state offices will issue press releases providing additional information for submitting nominations, with specifics about the number and categories of member positions available for each RAC in the state. Nominations for RACs should be sent to the appropriate BLM offices listed below:

Alaska

Alaska RAC

Ruth McCoard, Alaska State Office, BLM, 222 West 7th Avenue, #13, Anchorage, Alaska 99513, (970) 271–3322;

Alternate: Pam Eldridge, (970) 271–5555.

Arizona

Arizona RAC

Deborah Stevens, Arizona State Office, BLM, One North Central Avenue, Suite 800, Phoenix, Arizona 85004, (602) 417–9215.

California

Central California RAC

David Christy, Mother Lode Field Office, BLM, 5152 Hillsdale Circle, El Dorado Hills, California 95762, (916) 941–3146.

Northeastern California RAC

Jeff Fontana, Eagle Lake Field Office, BLM, 2950 Riverside Drive, Susanville, California 96130, (530) 252–5332.

Northwestern California RAC

Jeff Fontana, Eagle Lake Field Office, BLM, 2950 Riverside Drive, Susanville, California 96130, (530) 252–5332.

Colorado

Front Range RAC

Cass Cairns, Royal Gorge Field Office, BLM, 3028 East Main Street, Cañon City, Colorado 81212, (719) 269–8553.

Northwest RAC

David Boyd, Silt Field Office, BLM, 2300 River Frontage Road, Silt, Colorado 81652, (970) 876–9008.

Southwest RAC

Erin Curtis, Grand Junction Field Office, BLM, 2815 H Road, Grand Junction, Colorado 81506, (970) 244–3097.

Idaho

Boise District RAC

MJ Byrne, Boise District Office, BLM, 3948 Development Avenue, Boise, Idaho 83705, (208) 384–3393.

Coeur d'Alene District RAC

Lisa Wagner, Coeur d'Alene District Office, BLM, 3815 Schreiber Way, Coeur d'Alene, Idaho 83815, (208) 769–5014.

Idaho Falls District RAC

Sarah Wheeler, Idaho Falls District Office, BLM, 1405 Hollipark Drive, Idaho Falls, Idaho 83401, (208) 524–7613.

Twin Falls District RAC

Heather Tiel-Nelson, Twin Falls District Office, BLM, 2536 Kimberly Road, Twin Falls, Idaho 83301, (208) 736–2352.

Montana and Dakotas

Central Montana RAC

Craig Flentie, Lewistown Field Office, BLM, 920 Northeast Main Street, Lewistown, Montana 59457, (406) 538–1943.

Dakotas RAC

Lonny Bagley, North Dakota Field Office, BLM, 99 23rd Avenue West, Suite A, Dickinson, North Dakota 58601, (701) 227–7703.

Eastern Montana RAC

Mark Jacobsen, Miles City Field Office, BLM, 111 Garryowen Road, Miles City, Montana 59301, (406) 233–2800.

Western Montana RAC

David Abrams, Butte Field Office, BLM, 106 North Parkmont, Butte, Montana 59701, (406) 533–7617.

Nevada

Mojave-Southern Great Basin RAC; Northeastern Great Basin RAC; Sierra Front Northwestern Great Basin RAC

Rochelle Francisco, Nevada State Office, BLM, 1340 Financial Boulevard, Reno, Nevada 89502, (775) 861–6588.

Oregon/Washington

Eastern Washington RAC; John Day-Snake RAC; Southeast Oregon RAC

Pam Robbins, Oregon State Office, BLM, 333 SW First Avenue, P.O. Box 2965, Portland, Oregon 97204, (503) 808–6306.

Utah

Utah RAC

Sherry Foot, Utah State Office, BLM, 440 West 200 South, Suite 500, P.O. Box 45155, Salt Lake City, Utah 84101, (801) 539–4195.

Certification Statement: I hereby certify that the BLM Resource Advisory Councils are necessary and in the public interest in connection with the Secretary's responsibilities to manage the lands, resources, and facilities administered by the BLM.

Dated: March 22, 2010.

Robert V. Abbey,

Director.

[FR Doc. 2010–6669 Filed 3–25–10; 8:45 am]

BILLING CODE 4310–84–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLCAD070000 L16100000 DP0000]

Notice of Availability of the Draft Imperial Sand Dunes Recreation Area Management Plan and Draft Environmental Impact Statement and Associated Amendment to the California Desert Conservation Area Plan, CA

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of availability.

SUMMARY: In accordance with the National Environmental Policy Act of 1969 and the Federal Land Policy and Management Act of 1976, the Bureau of Land Management (BLM) has prepared a Draft Recreation Area Management Plan (RAMP)/Draft Environmental Impact Statement (EIS) for the Imperial Sand Dunes Recreation Area (ISDRA) and associated plan amendment to the California Desert Conservation Area (CDCA) Plan in Imperial County, California and by this notice is announcing the opening of the comment period.

DATES: To ensure that comments will be considered, the BLM must receive written comments on the Draft RAMP/EIS within 90 days following the date the Environmental Protection Agency publishes its notice in the **Federal Register.** The BLM will announce future meetings or hearings and any other public involvement activities at least 15 days in advance through public notices, media releases, and/or mailings.

ADDRESSES: You may submit comments at the public meetings or by any of the following methods:

- *E-mail: caisdrmp@ca.blm.gov.*
- *Fax:* (760) 337–4490.
- *Mail:* 1661 So. 4th St., El Centro, California 92243.

Copies of the Draft Imperial Sand Dunes RAMP/EIS are available in the El

Centro Field Office at the above address and at the BLM California State Office, 2800 Cottage Way, Sacramento, California 95825. Interested persons may also review the Draft Resource Management Plan (RMP)/EIS at the following Web site: *http://www.blm.gov/en/fo/elcentro.*

FOR FURTHER INFORMATION CONTACT: For further information contact Erin Dreyfuss, Environmental Protection Specialist, telephone (916) 978–4642; BLM California State Office, 2800 Cottage Way, Sacramento, California 95825.

SUPPLEMENTARY INFORMATION: As a result of a court order (U.S. District Court, Northern District of California), dated September 26, 2006, Case No. C–03–2509 SI, the BLM has prepared the Draft RAMP/EIS for the ISDRA and associated plan amendment to the CDCA.

The ISDRA project area encompasses approximately 200,000 acres of lands, approximately 150,000 acres of which are public lands bounded to the west by the Old Coachella Canal, to the east by the Union Pacific Railroad, to the north by Mammoth Wash, and to the south by Interstate 8 and the California/Mexico border. The primary activities in the ISDRA include off-highway vehicle use and camping. The Draft RAMP/EIS has been developed through a collaborative planning process and considers eight alternatives. Issues addressed in the Draft RAMP/EIS include: Recreation; transportation and public access; wildlife and botany; cultural resources and paleontology; renewable energy; water resources; geology and soils; mineral resources; socioeconomics; public health and safety; and visual resources.

The Draft RMP/EIS also considers the designation of two Areas of Critical Environmental Concern (ACEC), Plank Road and East Mesa. The preferred alternative would continue the 298-acre Plank Road ACEC to protect cultural resources and other resources values identified in the Draft RAMP/EIS. The preferred alternative would reduce the East Mesa ACEC from 6,454 acres to 5,799 acres, which overlaps the Planning Area. The East Mesa ACEC would continue to protect biological resources and other resource values identified in the Draft RAMP/EIS. The acreage of this ACEC varies by alternative. The preferred alternative would also remove the North Algodones Dunes ACEC, which encompasses 25,756 acres, in order to remove conflicting management prescriptions between this ACEC and the North Algodones Dunes Wilderness Area. Limitations on use of public lands within the Plank Road ACEC include restrictions on wind and solar energy development, as well as geothermal leasing. Limitations on use of public lands within the East Mesa ACEC include restrictions on wind and solar energy development, as well as geothermal leasing that includes surface occupancy.

Please note that public comments and information submitted including names, street addresses, and e-mail addresses of respondents will be available for public review and disclosure at the above address during regular business hours (8 a.m. to 4 p.m.), Monday through Friday, except holidays. 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.

Authority: 40 CFR 1506.6, 1506.10, and 43 CFR 1610.2

Vicki L. Wood,

Field Manager.

[FR Doc. 2010–6670 Filed 3–25–10; 8:45 am]

BILLING CODE 4310–40–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[CO–922–10–1310–FI; COC67396]

Notice of Proposed Reinstatement of Terminated Oil and Gas Lease

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of proposed reinstatement of terminated oil and gas lease.

SUMMARY: The Bureau of Land Management (BLM) received a petition for reinstatement of oil and gas lease COC67396 from Julander Energy Company, for lands in Moffat County, Colorado. The petition was filed on time and was accompanied by all the rentals due since the date the lease terminated under the law.

FOR FURTHER INFORMATION CONTACT: Milada Krasilinec, Land Law Examiner, Branch of Fluid Minerals Adjudication, at 303–239–3767.

SUPPLEMENTARY INFORMATION: The lessee has agreed to the amended lease terms for rentals and royalties at rates of $10 per acre or fraction thereof, per year and 16⅔ percent, respectively. The lessee has paid the required $500 administrative fee and $163 to reimburse the Department of the Interior for the cost of this **Federal Register** notice. The lessee has met all the requirements for reinstatement of the lease as set out in Section 31(d) and (e) of the Mineral Lands Leasing Act of 1920 (30 U.S.C. 188), and the BLM is proposing to reinstate lease COC67396 effective July 1, 2009, under the original terms and conditions of the lease and the increased rental and royalty rates cited above.

Anna Marie Burden,

Acting State Director.

[FR Doc. 2010–6725 Filed 3–25–10; 8:45 am]

BILLING CODE 4310–JB–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[CO–922–10–1310–FI; COC72147]

Notice of Proposed Reinstatement of Terminated Oil and Gas Lease

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of proposed reinstatement of terminated oil and gas lease.

SUMMARY: The Bureau of Land Management (BLM) received a petition for reinstatement of oil and gas lease COC72147 from DJ Simmons, Inc., for lands in San Miguel and Dolores Counties, Colorado. The petition was filed on time and was accompanied by all the rentals due since the date the lease terminated under the law.

FOR FURTHER INFORMATION CONTACT: Milada Krasilinec, Land Law Examiner, Branch of Fluid Minerals Adjudication, at 303–239–3767.

SUPPLEMENTARY INFORMATION: The lessee has agreed to the amended lease terms for rentals and royalties at rates of $10 per acre or fraction thereof, per year and 16⅔ percent, respectively. The lessee has paid the required $500 administrative fee and $163 to reimburse the Department of the Interior for the cost of this **Federal Register** notice. The lessee has met all the requirements for reinstatement of the lease as set out in section 31(d) and (e) of the Mineral Lands Leasing Act of 1920 (30 U.S.C. 188), and the BLM is proposing to reinstate lease COC72147 effective August 1, 2009, under the original terms and conditions of the

lease and the increased rental and royalty rates cited above.

Anna Marie Burden,

Acting State Director.

[FR Doc. 2010–6755 Filed 3–25–10; 8:45 am]

BILLING CODE 4310–JB–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLOR–936000–L14300000–ET0000; HAG–10–0098; OR–9651]

Notice of Proposed Withdrawal Extension and Opportunity for Public Meeting; Oregon

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice.

SUMMARY: The United States Forest Service (USFS) has filed an application with the Bureau of Land Management (BLM) that proposes to extend the duration of Public Land Order (PLO) No. 6876 for an additional 20-year term. PLO No. 6876 withdrew approximately 1,853.66 acres of National Forest System land from location and entry under the United States mining laws in order to protect scientific and ecological values, scenic and recreational values, and the investment of Federal funds at the Ashland Research Natural Area, the Jackson Campground Extension, and the Kanaka Campground. The withdrawal created by PLO No. 6876 will expire on September 9, 2011, unless extended. This notice also gives the public an opportunity to comment on the proposed action and to request a public meeting.

DATES: Comments and requests for a public meeting must be received by June 24, 2010.

ADDRESSES: Comments and meeting requests should be sent to the Oregon/Washington State Director, BLM, P.O. Box 2965, Portland, Oregon 97208–2965.

FOR FURTHER INFORMATION CONTACT: David Krantz, Rogue River-Siskiyou National Forest, (541) 618–2037, or Charles R. Roy, BLM Oregon/Washington State Office, (503) 808–6189.

SUPPLEMENTARY INFORMATION: The USFS has filed an application requesting that the Secretary of the Interior extend PLO No. 6876 (56 FR 46122 (1991)), which withdrew certain lands in Jackson County, Oregon, from location and entry under the United States mining laws (30 U.S.C. ch. 2) for an additional 20-year term, subject to valid existing rights. The area described contains approximately 1,853.66 acres in Jackson County. PLO No. 6876 is incorporated herein by reference.

The purpose of the proposed withdrawal extension is to continue protecting scientific and ecological research values at the Ashland Research Natural Area and its scenic and recreation values, along with the investment of Federal funds at the Jackson Campground Extension and the Kanaka campground.

The use of a right-of-way, interagency agreement, or cooperative agreement would not provide adequate protection.

The Forest Service would not need to acquire water rights to fulfill the purpose of the requested withdrawal extension.

Records related to the application may be examined by contacting Charles R. Roy at the above address or phone number.

For a period of 90 days from the date of publication of this notice, all persons who wish to submit comments, suggestions, or objections in connection with the proposed withdrawal extension may present their views in writing to the BLM State Director at the address indicated above.

Comments, including names and street addresses of respondents, will be available for public review at the address indicated above during regular business hours.

Individual respondents may request confidentiality. Before including your address, phone 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 from public review your personal identifying information, we cannot guarantee that we will be able to do so. If you wish to withhold your name or address from public review or from disclosure under the Freedom of Information Act, you must state this prominently at the beginning of your comments. Such requests will be honored to the extent allowed by law. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organization or businesses, will be made available for public inspection in their entirety.

Notice is hereby given that an opportunity for a public meeting is afforded in connection with the proposed withdrawal extension. All interested parties who desire a public meeting for the purpose of being heard on the proposed withdrawal extension must submit a written request to the BLM State Director at the address indicated above by June 24, 2010. Upon determination by the authorized officer that a public meeting will be held, a notice of the time and place will be published in the **Federal Register** and in at least one local newspaper not less than 30 days before the scheduled date of the meeting.

The application will be processed in accordance with the regulations set forth in 43 CFR 2310.4.

Authority: 43 CFR 2310.3–1.

Fred O'Ferrall,

Chief, Branch of Land, Mineral, and Energy Resources.

[FR Doc. 2010–6724 Filed 3–25–10; 8:45 am]

BILLING CODE 3410–11–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLNVSO0000 L58530000.ES0000; N–86602; 10–08807; MO4500008920; TAS:14X5232]

Notice of Realty Action: Recreation and Public Purposes Act Classification, Clark County, NV

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of realty action.

SUMMARY: The City of Las Vegas filed a Recreation and Public Purposes (R&PP) Act application for lease or conveyance of approximately 2.5 acres of public land in Las Vegas, Clark County, Nevada. The City proposes to use the land for a city fire station. This notice classifies the land as suitable for lease or conveyance under the provisions of the R&PP Act, as amended.

DATES: Interested parties may submit written comments regarding the proposed lease or conveyance of the lands until May 10, 2010.

ADDRESSES: Mail written comments to the Bureau of Land Management (BLM) Field Manager, Las Vegas Field Office, 4701 N. Torrey Pines Drive, Las Vegas, Nevada 89130.

FOR FURTHER INFORMATION CONTACT: Beth Ransel at the above address, via e-mail at *Beth_Ransel@blm.gov,* or phone (702) 515–5088.

SUPPLEMENTARY INFORMATION: The BLM has examined and found suitable to be classified for lease and subsequent conveyance under the provisions of the R&PP Act, as amended (43 U.S.C. 869 *et seq.*), the following public land described below:

Mount Diablo Meridian, Nevada

T. 20 S., R. 59 E.,
Sec. 1, N½SW¼NE¼SW¼SW¼, S½NW¼NE¼SW¼SW¼.

The area described contains 2.5 acres, more or less, in Clark County.

In accordance with the R&PP Act, the City of Las Vegas filed an R&PP application to develop the above described land as a fire station in this rapidly growing area. Additional detailed information pertaining to this application, plan of development, and site plans are in case file N–86602, which is located in the BLM Las Vegas Field Office at the address above.

The City of Las Vegas is a political subdivision of the State of Nevada and is therefore a qualified applicant under the R&PP Act.

Lease or conveyance of the public land shall be subject to valid existing rights. Subject to limitations prescribed by law and regulation, prior to conveyance, a holder of any right-of-way within the lease area may be given the opportunity to amend the right-of-way for conversion to a new term, including perpetuity, if applicable.

The land is not required for any Federal purpose. Lease or conveyance is consistent with the BLM Las Vegas Resource Management Plan, dated October 5, 1998, and would be in the public interest. The City of Las Vegas has not applied for more than the 6,400-acre limitation for recreation and public purpose uses in a year and has submitted a statement in compliance with the regulations at 43 CFR 2741.4(b).

Any lease or conveyance, if and 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 under the authority of the United States, Act of August 30, 1890 (43 U.S.C. 945); and

2. All minerals shall be reserved to the United States, 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.

Any lease or conveyance will be subject to valid existing rights, will contain any terms or conditions required by law and regulation, including, but not limited to, any terms or conditions required by 43 CFR 2741.9, and will contain appropriate indemnification clause protecting the United States from claims arising out of the lessee's or patentee's use, occupancy, or operations on the leased/patented lands. It will also contain any other terms and conditions deemed necessary or appropriate by the authorized officer.

On publication of this notice in the **Federal Register,** the land described will be segregated from all other forms of appropriation under the public land laws, including the general mining laws, except for lease or 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 on the suitability of the land for a city fire station. Comments on the classification are restricted to whether the land is physically suited for the proposal, whether the use will maximize 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 written comments regarding the specific use proposed in the application and plan of development, whether the BLM followed proper administrative procedures in reaching its decision to lease or convey the property under the R&PP Act, or any other factor not directly related to the suitability of the land for R&PP use.

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.

Any adverse comments on the proposed classification, lease or conveyance will be reviewed by the BLM Nevada State Director, who may sustain, vacate, or modify this realty action and classification and issue a final determination. In the absence of any adverse comments, the decision will become effective 60 days after the date of publication of this notice in the **Federal Register.** The lands will not be available for lease or conveyance until after the decision becomes effective.

Beth Ransel,

Assistant Field Manager, Division of Lands, Las Vegas, Nevada.

[FR Doc. 2010–6735 Filed 3–25–10; 8:45 am]

BILLING CODE 4310–HC–P

DEPARTMENT OF THE INTERIOR

Bureau of Land Management

[LLNVSO0000 L58530000.ES0000; N–86601; 10–08807; MO4500008919; TAS:14X5232]

Notice of Realty Action: Recreation and Public Purposes Act Classification, Clark County, NV

AGENCY: Bureau of Land Management, Interior.

ACTION: Notice of realty action.

SUMMARY: The City of Las Vegas has filed a Recreation and Public Purposes (R&PP) Act application for lease or conveyance of approximately 7.5 acres of public land in Las Vegas, Clark County, Nevada. The City proposes to use the land for a public park. This notice classifies the land as suitable for lease or conveyance under the provisions of the R&PP Act, as amended.

DATES: Interested parties may submit written comments regarding the proposed lease or conveyance of the lands until May 10, 2010.

ADDRESSES: Mail written comments to the Bureau of Land Management (BLM) Field Manager, Las Vegas Field Office, 4701 N. Torrey Pines Drive, Las Vegas, Nevada 89130.

FOR FURTHER INFORMATION CONTACT: Beth Ransel at the above address, via e-mail at *Beth_Ransel@blm.gov,* or phone (702) 515–5088.

SUPPLEMENTARY INFORMATION: The BLM has examined and found suitable to be classified for lease and subsequent conveyance under the provisions of the R&PP Act, as amended (43 U.S.C. 869 *et seq.*), the following public land described below:

Mount Diablo Meridian, Nevada,

T. 19 S., R. 59 E.,
Sec. 1, E½NW¼SW¼SW¼, N½NW¼NE¼SW¼SW¼, and S½SW¼NE¼SW¼SW¼.

The area described contains 7.5 acres, more or less, in Clark County.

In accordance with the R&PP Act, the City of Las Vegas filed an R&PP application to develop the above described land as a public park in this rapidly growing area. Additional detailed information pertaining to this application, plan of development, and site plans are in case file N–86601, which is located in the BLM Las Vegas Field Office at the address above.

The City of Las Vegas is a political subdivision of the State of Nevada and is therefore a qualified applicant under the R&PP Act.

Subject to limitations prescribed by law and regulation, prior to conveyance, a holder of any right-of-way within the lease area may be given the opportunity to amend the right-of-way for conversion to a new term, including perpetuity, if applicable.

The land is not required for any Federal purpose. Lease or conveyance is consistent with the BLM Las Vegas Resource Management Plan, dated October 5, 1998, and would be in the public interest. The City of Las Vegas has not applied for more than the 6,400-acre limitation for recreation and public purpose uses in a year and has submitted a statement in compliance with the regulations at 43 CFR 2741.4(b).

Any lease or conveyance, if and 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 under the authority of the United States, Act of August 30, 1890 (43 U.S.C. 945); and

2. All minerals shall be reserved to the United States, 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.

Any lease or conveyance will be subject to valid existing rights, will contain any terms or conditions required by law and regulation, including, but not limited to, any terms or conditions required by 43 CFR 2741.9, and will contain an appropriate indemnification clause protecting the United States from claims arising out of the lessee's or patentee's use, occupancy, or operations on the leased/patented lands. It will also contain any other terms and conditions deemed necessary or appropriate by the authorized officer.

On publication of this notice in the **Federal Register,** the land described will be segregated from all other forms of appropriation under the public land laws, including the general mining laws, except for lease or 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 on the suitability of the land for a public park. Comments on the classification are restricted to whether the land is physically suited for the proposal, 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 written comments regarding the specific use proposed in the application and plan of development, whether the BLM followed proper administrative procedures in reaching its decision to lease or convey the property under the R&PP Act, or any other factor not directly related to the suitability of the land for R&PP use.

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.

Any adverse comments on the proposed classification, lease or conveyance will be reviewed by the BLM Nevada State Director, who may sustain, vacate, or modify this realty action and classification and issue a final determination. In the absence of any adverse comments, the decision will become effective 60 days after the date of publication of this notice in the **Federal Register.** The lands will not be available for lease or conveyance until after the decision becomes effective.

Beth Ransel,

Assistant Field Manager, Division of Lands, Las Vegas, Nevada.

[FR Doc. 2010–6727 Filed 3–25–10; 8:45 am]

BILLING CODE 4310–HC–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS-R9-IA-2010-N063]
[96300-1671-0000-P5]

Receipt of Applications for Permit

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of receipt of applications for permit.

SUMMARY: We, the U.S. Fish and Wildlife Service, invite the public to comment on the following applications to conduct certain activities with endangered species, marine mammals, or both. With some exceptions, the Endangered Species Act (ESA) and Marine Mammal Protection Act (MMPA) prohibits activities with listed species unless a Federal permit is issued that allows such activities. Both laws require that we invite public comment before issuing these permits.

DATES: We must receive requests for documents or comments on or before April 26, 2010. We must receive requests for marine mammal permit public hearings, in writing, at the address shown in the **ADDRESSES** section by April 26, 2010.

ADDRESSES: Brenda Tapia, Division of Management Authority, U.S. Fish and Wildlife Service, 4401 North Fairfax Drive, Room 212, Arlington, VA 22203; fax (703) 558-7725; or e-mail *DMAFR@fws.gov*.

FOR FURTHER INFORMATION CONTACT: Brenda Tapia, (703) 358-2104 (telephone); (703) 558-7725 (fax); *DMAFR@fws.gov* (e-mail).

SUPPLEMENTARY INFORMATION:

I. Public Comment Procedures

A. How Do I Request Copies of Applications or Comment on Submitted Applications?

Send your request for copies of applications or comments and materials concerning any of the applications to the contact listed under **ADDRESSES**. Please include the **Federal Register** notice publication date, the PRT-number, and the name of the applicant in your request or submission. We will not consider requests or comments sent to an e-mail or address not listed under **ADDRESSES**. If you provide an email address in your request for copies of applications, we will attempt to respond to your request electronically.

Please make your requests or comments as specific as possible. Please confine your comments to issues for which we seek comments in this notice, and explain the basis for your comments. Include sufficient information with your comments to allow us to authenticate any scientific or commercial data you include.

The comments and recommendations that will be most useful and likely to influence agency decisions are: (1) Those supported by quantitative information or studies; and (2) Those that include citations to, and analyses of, the applicable laws and regulations. We will not consider or include in our administrative record comments we receive after the close of the comment period (see DATES) or comments delivered to an address other than those listed above (see **ADDRESSES**).

B. May I Review Comments Submitted by Others?

Comments, including names and street addresses of respondents, will be available for public review at the

address listed under **ADDRESSES**. The public may review documents and other information applicants have sent in support of the application unless our allowing viewing would violate the Privacy Act or Freedom of Information 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.

II. Background

To help us carry out our conservation responsibilities for affected species, section 10(a)(1)(A), of ESA, as amended (16 U.S.C. 1531 *et seq.*); our ESA regulations in the Code of Federal Regulations (CFR) at 50 CFR 17; the MMPA, as amended (16 U.S.C. 1361 *et seq.*); and our MMPA regulations in the Code of Federal Regulations (CFR) at 50 CFR 18 require that we invite public comment before final action on permit applications. Under the MMPA, you may request a hearing on any MMPA application received. If you request a hearing, give specific reasons why a hearing would be appropriate. The holding of such a hearing is at the discretion of the Service Director.

III. Permit Applications

A. Endangered Species

Applicant: Lionshare Farm Zoological, LLC, Greenwich, CT; PRT-01671A

The applicant requests a permit to import a female cheetah (*Acrinonyx jubatus*) from DeWildt Cheetah Breeding Centre, South Africa where the individual cheetah was captive bred for the purpose of enhancement of the survival of the species.

Applicant: Florida Atlantic University/ Div. of Research And Sponsored Programs, Boca Raton, FL; PRT - 212266

The applicant requests a permit to export and re-import non-living museum specimens of endangered and threatened species of animals previously accessioned into the permittee's collection for scientific research. This notification covers activities conducted by the applicant for a five year period.

Applicant: Sam Noble Oklahoma Museum of Natural History, Norman, OK; PRT – 075249

The applicant requests a permit to export and re-import non-living museum specimens of endangered and threatened species of animals previously accessioned into the permittee's collection for scientific research. This notification covers activities conducted by the applicant for a five year period.

B. Endangered Marine Mammals and Marine Mammals

Applicant: Robert F. Rockwell, American Museum of Natural History, New York, NY; PRT-03086A

The applicant requests a permit to import up to 1,000 biological samples annually from polar bears (*Ursus maritimus*) from Canada for the purpose of scientific research. This notification covers activities to be conducted by the applicant over a 5–year period.

Applicant: Sea Studios Foundation, Monterey, CA; PRT-04400A

The applicant requests a permit to photograph Southern sea otters (*Enhydra lutris nereis*), both above and under water, for commercial and educational purposes. This notification covers activities to be conducted by the applicant over a 2–year period.

Concurrent with publishing this notice in the **Federal Register**, we are forwarding copies of the above applications to the Marine Mammal Commission and the Committee of Scientific Advisors for their review.

Dated: March 19, 2010

Brenda Tapia,

Program Analyst, Branch of Permits, Division of Management Authority

[FR Doc. 2010–6672 Filed 3–25–10; 8:45 am]

BILLING CODE 4310–55–S

INTERNATIONAL TRADE COMMISSION

[Investigation No. AA1921–167 (Third Review)]

Pressure Sensitive Plastic Tape From Italy; Determination

On the basis of the record [1] developed in the subject five-year review, 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 antidumping duty finding on pressure sensitive plastic tape from Italy would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.[2]

Background

The Commission instituted this review on May 1, 2009 (74 FR 20340) and determined on August 4, 2009, that it would conduct a full review (74 FR 40845, August 13, 2009). Notice of the scheduling of the Commission's review 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 August 26, 2009 (74 FR 43155). The hearing was held in Washington, DC, on January 14, 2010, and all persons who requested the opportunity were permitted to appear in person or by counsel.

The Commission transmitted its determination in this review to the Secretary of Commerce on March 11, 2010. The views of the Commission are contained in USITC Publication 4128 (March 2010), entitled *Pressure Sensitive Plastic Tape from Italy: Investigation No. AA1921–167 (Third Review).*

Issued: March 22, 2010.

By order of the Commission.

Marilyn R. Abbott,

Secretary.

[FR Doc. 2010–6666 Filed 3–25–10; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

[Investigation No. 337–TA–648]

Notice of Commission Decision

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission has determined to reverse a remand initial determination ("remand ID") of the presiding administrative law judge ("ALJ"), and to affirm-in-part, reverse-in-part, and modify-in-part a final initial determination ("ID") of the presiding administrative law judge ("ALJ"). The Commission has determined that there is no violation of section 337 in the above-captioned

[1] The record is defined in sec. 207.2(f) of the Commission's Rules of Practice and Procedure (19 CFR 207.2(f)).

[2] Chairman Shara L. Aranoff, Vice Chairman Daniel R. Pearson, and Commissioner Deanna Tanner Okun dissenting.

investigation, and has terminated the investigation. The Commission will issue an opinion shortly.

FOR FURTHER INFORMATION CONTACT: Clint Gerdine, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436, telephone (202) 708–2310. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, SW., Washington, DC 20436, telephone (202) 205–2000. General information concerning the Commission may also be obtained by accessing its Internet server at *http://www.usitc.gov.* The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov.* Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205–1810.

SUPPLEMENTARY INFORMATION: The Commission instituted this investigation on May 21, 2008, based on a complaint filed on April 18, 2008, by LSI Corporation of Milpitas, California and Agere Systems Inc. of Allentown, Pennsylvania. The complaint, as amended, alleged violations of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain semiconductor integrated circuits using tungsten metallization and products containing the same by reason of infringement of one or more of claims 1, 3, and 4 of U.S. Patent No. 5,227,335. The amended complaint named numerous respondents. Several respondents have been terminated from the investigation due to settlement or failure to name the proper party. The following six respondents remain in the investigation: Tower Semiconductor, Ltd. ("Tower") of Israel; Jazz Semiconductor ("Jazz") of Newport Beach, California; Powerchip Semiconductor Corporation of Taiwan; Grace Semiconductor Manufacturing Corporation of China; Integrated Device Technology, Inc. of San Jose, California; and Nanya Technology Corporation of Taiwan. The complaint further alleged that an industry in the United States exists as required by subsection (a)(2) of section 337.

On September 21, 2009, the ALJ issued his final ID finding no violation of section 337 by the remaining respondents. On November 23, 2009, the Commission issued notice of its determination to review-in-part the ID and issued an order remanding the investigation to the ALJ for further proceedings relating to whether claim 4 is rendered obvious by IBM Process A in light of the other prior art asserted by respondents and the Commission investigative attorney ("IA"). Specifically, the Commission determined to review: (1) Invalidity of claims 1, 3, and 4 of the '335 patent under 35 U.S.C. 102(g) & 103 with respect to IBM Process A, IBM Process B, and the AMD prior art; and (2) Jazz's stipulation regarding whether its process meets the complete, third recited step of claim 1, *i.e.,* "depositing a tungsten layer by chemical vapor deposition, said tungsten layer covering said glue layer on said dielectric and said exposed material." The Commission determined not to review the remainder of the ID. Also, the Commission requested written submissions on the ALJ's remand determination and responses to the written submissions, and briefing on remedy, the public interest, and bonding.

On January 15, 2010, the ALJ issued his remand ID finding that claim 4 is not rendered obvious by IBM Process A and other prior art asserted by respondents and the IA. On February 2 and 12, 2010, respectively, complainants and respondents each filed a brief and reply brief on the issues for which the Commission requested written submissions. On February 2 and 16, 2010, respectively, the IA filed a brief and a reply brief on the issues for which the Commission requested written submissions. Also, on February 12, 2010, Tower and Jazz filed a joint, separate reply brief.

Having reviewed the record in this investigation, including the remand and final IDs and the parties' written submissions, the Commission has determined to reverse the remand ID, and affirm-in-part, reverse-in-part, and modify-in-part the final ID. The Commission has determined that there is no violation of section 337 by the remaining respondents. Particularly, the Commission has reversed the ALJ's finding that claim 4 is invalid due to anticipation in view of IBM Process A, but has found claim 4 to be invalid due to obviousness in view of IBM Process A in combination with the other prior art asserted by the IA and respondents. Also, the Commission has affirmed the ALJ's finding that claims 1 and 3 are invalid due to anticipation in view of IBM Process A. The Commission has also modified the ALJ's ruling that Jazz stipulated to the complete, third recited step of claim 1, and instead it has determined that Jazz's stipulation to the third step only includes the step of "depositing a tungsten layer by chemical vapor deposition." The Commission has determined to take no position on the ALJ's rulings that claims 1 and 3 are not anticipated in view of IBM Process B, claim 1 is not anticipated in view of the AMD prior art, and claims 1, 3, and/or 4 are not obvious in view of IBM Process B or the AMD prior art.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and in section 210.45 of the Commission's Rules of Practice and Procedure (19 CFR 210.45).

By order of the Commission.

Issued: March 22, 2010.

Marilyn R. Abbott,

Secretary to the Commission.

[FR Doc. 2010–6757 Filed 3–25–10; 8:45 am]

BILLING CODE 7020–02–P

DEPARTMENT OF JUSTICE

Notice of Lodging of Second Modification to Consent Decree Under Clean Air Act

Under 28 CFR 50.7, notice is hereby given that on March 19, 2010, a Second Modification ("Second Modification") to the November 2005 First Revised Consent Decree ("First Revised Consent Decree") in the case of *United States, et al.* v. *Marathon Ashland Petroleum LLC,* Civil Action No. 01–40119 (PVG), was lodged with the United States District Court for the Eastern District of Michigan.

Under the Second Modification, MPC must continue to comply with the First Revised Consent Decree, but, in addition, MPC will pay a civil penalty of $408,000 and perform two Supplemental Environmental Projects valued at approximately $963,000 at its Canton and Catlettsburg Refineries in settlement of claims that MPC violated the Benzene Waste Operations NESHAP ("BWON"), 40 CFR part 61, subpart FF, and the BWON provisions of the November 2005 First Revised Consent Decree at those two refineries. In addition, MPC will pay a stipulated penalty of $3,933 to resolve claims involving flaring incidents at the Canton, Catlettsburg, Detroit, and Robinson Refineries. Finally, the Second Modification amends two Appendices to the First Revised Consent Decree to reflect a 2008 regulatory change that EPA made to the New

Source Performance Standards for Petroleum Refineries.

The Department of Justice will receive for a period of thirty (30) days from the date of this publication comments relating to the Second Modification. Comments should be addressed to the Assistant Attorney General, Environment and Natural Resources Division, and either emailed to *pubcomment-ees.enrd@usdoj.gov* or mailed to P.O. Box 7611, U.S. Department of Justice, Washington, DC 20044–7611, and should refer to *United States, et al.* v. *Marathon Ashland Petroleum LLC,* D.J. Ref. No. 90–5–2–1–07247.

The Second Modification may be examined at the Office of the United States Attorney, 211 W. Fort St., Suite 2300, Detroit, Michigan 48226, and at U.S. EPA Region 5, 77 W. Jackson St., Chicago, IL 60604. During the public comment period, the Second Modification may also be examined on the following Department of Justice Web site: *http://www.usdoj.gov/enrd/Consent_Decrees.html.* A copy of the Second Modification 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 number (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 $3.75 (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.

Maureen M. Katz,

Assistant Section Chief, Environmental Enforcement Section, Environment and Natural Resources Division.

[FR Doc. 2010–6673 Filed 3–25–10; 8:45 am]

BILLING CODE 4410–15–P

DEPARTMENT OF JUSTICE

Proposed Modification of Consent Decree Under the Comprehensive Environmental Response, Compensation, and Liability Act

Notice is hereby given that on February 5, 2010, a stipulation seeking to modify certain provisions of the January 27, 2005 Consent Decree entered in *United States* v. *Chief Consolidated Mining Company,* Civ. No. 2:04CV00891 BSJ, was filed in the United States District Court for the District of Utah.

In exchange for releasing Chief from its $60 million confession of judgment, certain future income recapture provisions, and an obligation to sell certain on-Site, non-mining land required by the 2005 Consent Decree, the Stipulation Modifying Consent Decree substitutes a requirement for Chief to pay to the Environmental Protection Agency ("EPA") $225,000 a year for each of the five years following the modification (total payment of $1,125,000). The Stipulation also extends until December 31, 2013 certain provisions of the Consent Decree related to Chief's in-kind clean up contributions and provides a grant from Chief to the City of Eureka, Utah of an easement. The easement will facilitate the City's role in maintaining the integrity of EPA's Site remedy. The proposed modifications liquidate for equivalent monetary value certain obligations under the Consent Decree which Chief is no longer able to perform due to changing circumstances and are consistent with Chief's ability-to-pay limitations which were recognized in the initial settlement.

The Department of Justice will receive for a period of thirty (30) days from the date of this publication comments relating to the Stipulation Modifying Consent Decree. Comments should be addressed to the Assistant Attorney General, Environment and Natural Resources Division, and either e-mailed to *pubcomment-ees.enrd@usdoj.gov* or mailed to P.O. Box 7611, U.S. Department of Justice, Washington, DC 20044–7611, and should refer to *United States* v. *Chief Consolidated Mining Company,* Civil Action. No. 2:04CV00891 BSJ, D.J. Ref. 90–11–3–07993/2.

The Stipulation Modifying Consent Decree may be examined at U.S. EPA Region 8, 1595 Wynkoop Street, Denver, Colorado 80202–1129. During the public comment period, the Stipulation Modifying Consent Decree, may also be examined on the following Department of Justice Web site, *http://www.usdoj.gov/enrd/Consent_Decrees.html.* A copy of the Stipulation Modifying 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, exclusive of exhibits and defendants' signatures, please enclose a check in the amount of $2.75 (25¢ 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. If requesting a copy with exhibits, enclose a check in the amount of $4.00.

Maureen Katz,

Assistant Chief, Environmental Enforcement Section, Environment and Natural Resources Division.

[FR Doc. 2010–6752 Filed 3–25–10; 8:45 am]

BILLING CODE 4410–15–P

DEPARTMENT OF JUSTICE

Office of Justice Programs

[OMB Number 1121–0306]

Agency Information Collection Activities: Proposed Collection; Comments Requested

ACTION: 30-day notice of new information collection: Civil Justice Survey of State Courts Trials on Appeal.

The Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995. The proposed information collection is published to obtain comments from the public and affected agencies. The proposed information collection was previously published in the **Federal Register** Volume 75, Number 11, page 2888, on January 19, 2010, allowing for a 60-day public comment period.

The purpose of this notice is to allow an additional 30 days for public comment until April 26, 2010. This process is conducted in accordance with 5 CFR 1320.10.

Written comments and/or suggestions regarding the items contained in this notice, especially the estimated public burden and associated response time, should be directed to the Office of Management and Budget, Office of Information and Regulatory Affairs, Attention Department of Justice Desk Officer, Washington, DC 20503. Additionally, comments may be submitted to OMB via facsimile to (202) 395–5806.

Written comments and suggestions from the pubic and affected agencies concerning the proposed collection of information are encouraged. Your comments should address one or more of the following four points:

—Evaluate whether the proposed collection of information is necessary for the proper performance of the

function 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 submission of responses.

Overview of this information:

(1) *Type of information collection:* Reinstatement, with change, of a previously approved collection for which OMB approval has expired, State Court Processing Statistics, 2009.

(2) *The title of the form/collection:* State Court Processing Statistics, 2009.

(3) *The agency form number, if any, and the applicable component of the Department sponsoring the collection:* The form labels are SCPS—2009, SATCS—2009, Bureau of Justice Statistics, Office of Justice Programs, U.S. Department of Justice.

(4) *Affected Public Who Will be Asked or Required to Respond, as well as a Brief Abstract:* State Trial Courts and Pretrial Agencies. Abstract: The State Court Processing Statistics (SCPS) project covers felony case processing in a sample of the nation's 75 most populous counties on a recurring basis. In the SCPS data collection program, felony defendants are tracked for up to 1 year with data collected on a variety of felony case processing characteristics. These include the types of arrest charges filed against felony defendants, conditions of pretrial release, and pretrial misconduct which includes the court appearance record, violations of release conditions, and re-arrests committed while on pretrial release. The adjudication outcomes encompassing the dismissal, diversion, guilty plea, and trial conviction rates for felony defendants are also recorded. For those defendants convicted, sentencing data are collected. The SCPS 2009 project also involves collecting aggregate information on the electronic data storage and transfer capacities of courts located in a sample of the nation's 900 most populous counties.

(5) *An Estimate of the Total Number of Respondents and the Amount of Time Estimated for an Average Respondent to Respond:* It is estimated that information will be collected on a total of 15,000 felony defendants from 40 responding counties. The estimated burden hours will be contingent upon the counties electronic storage and transfer capabilities. Data collection will occur in a more timely and expeditious manner among counties with the capacities to electronically transfer all their case processing, pretrial, and criminal history information to the data collection agent. It is estimated that about 10 of the 40 counties have the capacity to transfer entire files of SCPS cases and that it should take these counties about 15 hours per county to produce programs capable of transferring the SCPS data to the data collection agent. For the remaining 30 counties that lack the capacity to engage in electronic transfers, data collection will involve manually coding the SCPS survey forms for an online or paper based submission. Prior SCPS data collection endeavors show an estimated one hour to manually code each SCPS case for online or paper based submission. In addition to collecting case processing information, courts located in 200 jurisdictions will be asked to complete a spreadsheet surveying their overall levels of case and pretrial automation. Pretests of the instrument found that the average time to complete the spreadsheet was about 2 hours per trial court.

(6) *An Estimate of the Total Public Burden (in hours) Associated with the collection:* The estimated public burden associated for the SCPS data collection is 11,800 hours. In the 30 counties in which SCPS cases are manually coded for paper or online based submission, an estimated 11,250 data collection forms (375 forms per county) will be coded and it should take an estimated one hour to code each data collection form. Hence, the estimated public burden associated with the manual based collection of SCPS data forms should be about 11,250 hours. In the 10 counties in which SCPS cases can be transferred through computerized case management systems, it should take an estimated 150 hours (15 hours per county) to generate the programs capable of transferring information for these SCPS cases. Lastly, about 400 hours will be required to complete the spreadsheets surveying the overall levels of case and pretrial automation for courts located in 200 counties (200 counties multiplied by 2 hours per spreadsheet). Therefore, the total burden time for the SCPS 2009 project should be about 11,800 hours (11,250 hours for manual based data collection + 150 hours for computerized transfer of automated SCPS data + 400 hours for the survey of court automation capacities).

If additional information is required contact: Ms. Lynn Bryant, Department Clearance Officer, United States Department of Justice, Justice Management Division, Policy and Planning Staff, Patrick Henry Building, Suite 1600, 601 D Street, NW., Washington, DC 20530.

Dated: March 23, 2010.

Lynn Bryant,

Department Clearance Officer, PRA, United States Department of Justice.

[FR Doc. 2010–6733 Filed 3–25–10; 8:45 am]

BILLING CODE 4410–18–P

DEPARTMENT OF JUSTICE

National Institute of Corrections

Solicitations for Cooperative Agreements

The following funding opportunities were published on Thursday, March 11, 2010 in Volume 75, No. 47.

Solicitation for a Cooperative Agreement—Training for Executive Excellence: The Role of the Correctional CEO Curriculum Development. Funding Opportunity Number 10A61, found on pages 11562 and 11563.

Solicitation for a Cooperative Agreement—Training for Executive Excellence: Leadership Style and Instrumentation Curriculum Development. Funding Opportunity Number 10A62, found on pages 11561 and 11562.

"NOTICE" of extended deadline date for submissions for the above referenced funding opportunities.

Applications will be accepted until 4 p.m. EST on Tuesday, March 30, 2010.

Morris L. Thigpen,

Director, National Institute of Corrections.

[FR Doc. 2010–6812 Filed 3–25–10; 8:45 am]

BILLING CODE 4410–36–P

DEPARTMENT OF LABOR

Office of the Secretary

Submission for OMB Review: Comment Request

March 22, 2010.

The Department of Labor (DOL) hereby announces the submission of the following public information collection request (ICR) to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995 (Pub. L. 104–13, 44 U.S.C. chapter 35).

A copy of this ICR, with applicable supporting documentation; including among other things a description of the likely respondents, proposed frequency of response, and estimated total burden may be obtained from the RegInfo.gov Web site at *http://www.reginfo.gov/public/do/PRAMain* or by contacting Darrin King on 202–693–4129 (this is not a toll-free number)/e-mail: *DOL_PRA_PUBLIC@dol.gov.*

Interested parties are encouraged to send comments to the Office of Information and Regulatory Affairs, Attn: OMB Desk Officer for the Department of Labor—Employee Benefits Security Administration (EBSA), Office of Management and Budget, Room 10235, Washington, DC 20503, Telephone: 202–395–7316/Fax: 202–395–5806 (these are not toll-free numbers), E-mail: *OIRA_submission@omb.eop.gov* within 30 days from the date of this publication in the **Federal Register.** In order to ensure the appropriate consideration, comments should reference the OMB Control Number (see below).

The OMB 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 submission of responses.

Agency: Employee Benefits Security Administration.

Type of Review: Extension without change of a currently approved collection.

Title of Collection: Summary Plan Description Requirements Under ERISA.

OMB Control Number: 1210–0039.

Affected Public: Private sector.

Estimated Number of Respondents: 3,508,000.

Total Estimated Annual Burden Hours: 262,000.

Total Estimated Annual Costs Burden (Operation and Maintenance): $295,148,000.

Description: Section 104(b)(1) of the Employee Retirement Security Act of 1974 (ERISA) requires the administrator of an employee benefit plan to furnish each plan participant and each beneficiary receiving benefits under the plan a copy of the plan's summary plan description (SPD) within 90 days after an individual becomes a participant and (in the case of a beneficiary) within 90 days after an individual first receives benefits, or, if later, within 120 days after the plan first becomes subject to Part 2 of Title I of ERISA. Section 104(b)(1) further specifies that if a plan document is amended, an updated SPD must be furnished subsequently every fifth year, integrating all plan amendments made within such five-year period. If the plan document is not amended, an updated SPD must be sent to participants and beneficiaries every 10th year. The Department's regulations at 29 CFR 2520. 102–2, 102–3, 104b–2, and 104b–3, and provide guidance on the content, frequency, and manner of disclosures required under ERISA to be furnished by employee benefit plans to plan participants and certain specified plan beneficiaries periodically in SPDs, Summaries of Material Modifications, and Summaries of Material Reductions. For additional information, see related notice published in the **Federal Register** on November 27, 2009 (Vol. 74, page 62351).

Darrin A. King,

Departmental Clearance Officer.

[FR Doc. 2010–6744 Filed 3–25–10; 8:45 am]

BILLING CODE 4510–29–P

DEPARTMENT OF LABOR

Office of the Secretary

Submission for OMB Review: Comment Request

March 22, 2010.

The Department of Labor (DOL) hereby announces the submission of the following public information collection request (ICR) to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995 (Pub. L. 104–13, 44 U.S.C. chapter 35). A copy of this ICR, with applicable supporting documentation; including among other things a description of the likely respondents, proposed frequency of response, and estimated total burden may be obtained from the RegInfo.gov Web site at *http://www.reginfo.gov/public/do/PRAMain* or by contacting Darrin King on 202–693–4129 (this is not a toll-free number)/e-mail: *DOL_PRA_PUBLIC@dol.gov.*

Interested parties are encouraged to send comments to the Office of Information and Regulatory Affairs, Attn: OMB Desk Officer for the Department of Labor—Bureau of Labor Statistics (BLS), Office of Management and Budget, Room 10235, Washington, DC 20503, Telephone: 202–395–7316/Fax: 202–395–5806 (these are not toll-free numbers), E-mail: *OIRA_submission@omb.eop.gov* within 30 days from the date of this publication in the **Federal Register.** In order to ensure the appropriate consideration, comments should reference the OMB Control Number (see below).

The OMB 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 submission of responses.

Agency: Bureau of Labor Statistics.

Type of Review: Revision of a currently approved collection.

Title of Collection: National Longitudinal Survey of Youth 1997.

OMB Control Number: 1220–0157.

Affected Public: Individuals or households.

Total Estimated Number of Respondents: 7,620.

Total Estimated Annual Burden Hours: 8,317.

Total Estimated Annual Costs Burden (Operation and Maintenance): $0.

Description: The National Longitudinal Survey of Youth 1997 (NLSY97) includes 8,984 respondents who were born in the years 1980 through 1984 and lived in the United States when the survey began in 1997. The primary objective of the survey is to study the transition from full-time schooling to the establishment of careers and families. The longitudinal focus of the survey requires information to be collected about the same individuals over many years in order to trace their education, training, work experience,

fertility, income, and program participation. One of the goals of the Department of Labor is to produce and disseminate timely, accurate, and relevant information about the U.S. labor force. The Bureau of Labor Statistics contributes to this goal by gathering information about the labor force and labor market and disseminating it to policymakers and the public so that participants in those markets can make more informed, and thus more efficient, choices. Research based on the NLSY97 contributes to the formation of national policy in the areas of education, training, employment programs, and school-to-work transitions. For additional information, see related notice published in the **Federal Register** on January 5, 2010 (Vol. 75, page 450).

Darrin A. King,

Departmental Clearance Officer.

[FR Doc. 2010–6745 Filed 3–25–10; 8:45 am]

BILLING CODE 4510–24–P

DEPARTMENT OF LABOR

Veterans' Employment and Training Service

Homeless Veterans' Reintegration Into Employment

AGENCY: Veterans' Employment and Training Service, Department of Labor.

Announcement Type: New Notice of Availability of Funds and Solicitation for Grant Applications. The full announcement is posted on *http://www.grants.gov.*

Funding Opportunity Number: SGA 10–01.

Key Dates: The closing date for receipt of applications is 30 days after publication via *http://www.grants.gov.*

Funding Opportunity Description

The U.S. Department of Labor (USDOL or Department), Veterans' Employment and Training Service (VETS) announces a grant competition under 38 U.S.C. 2021, which provides that "the Secretary of Labor shall conduct, directly or through grant or contract, such programs as the Secretary determines appropriate to provide job training, counseling, and placement services (including job readiness and literacy and skills training) to expedite the reintegration of homeless Veterans into the labor force." HVRP grants are intended to address two objectives: (1) to provide services to assist in reintegrating homeless veterans into meaningful employment within the labor force, and (2) to stimulate the development of effective service delivery systems that will address the complex problems facing homeless veterans.

The full Solicitation for Grant Application is posted on *http://www.grants.gov* under U.S. Department of Labor/VETS. Applications submitted through *http://www.grants.gov* or hard copy will be accepted. If you need to speak to a person concerning these grants, you may telephone Cassandra Mitchell at 202–693–4570 (not a toll-free number). If you have issues regarding access to the *http://www.grants.gov* Web site, you may telephone the Contact Center Phone at 1–800–518–4726.

Signed at Washington, DC, this 22nd day of March, 2010.

Cassandra R. Mitchell,

Grant Officer.

[FR Doc. 2010–6692 Filed 3–25–10; 8:45 am]

BILLING CODE 4510–79–P

DEPARTMENT OF LABOR

Veterans' Employment and Training Service

Veterans Workforce Investment Program

AGENCY: Veterans' Employment and Training Service, Department of Labor.

Announcement Type: New Notice of Availability of Funds and Solicitation for Grant Applications. The full announcement is posted on *http://www.grants.gov.*

Funding Opportunity Number: SGA 10–02.

Key Dates: The closing date for receipt of applications is 30 days after publication via *http://www.grants.gov.*

Funding Opportunity Description

The U.S. Department of Labor (USDOL), Veterans' Employment and Training Service (VETS), announces a grant competition under the Veterans' Workforce Investment Program (VWIP) for Program Year (PY) 2010, as authorized under section 168 of the Workforce Investment Act (WIA) of 1998. This Solicitation for Grant Applications (SGA) notice contains all of the necessary information and forms needed to apply for grant funding. Selected programs will assist eligible Veterans by providing employment, training, support services, credentialing, networking information, and/or other assistance.WIA section 168, 29 U.S.C. 2913 authorizes the Department of Labor to make grants to meet the needs for workforce investment activities of Veterans with service-connected disabilities, Veterans who have significant barriers to employment, Veterans who served on active duty in the armed forces during a war or in a campaign or expedition for which a campaign badge has been authorized, and recently separated Veterans within 48 months of discharge (under conditions other than dishonorable). Veterans who received a "dishonorable" discharge are ineligible for VWIP services. Priority of service for Veterans in all Department of Labor funded training programs is established in 38 U.S.C. 4215.

VWIP grants are intended to address two objectives: (a) To provide services to assist in reintegrating eligible veterans into meaningful employment within the labor force; and (b) to stimulate the development of effective service delivery systems that will address the complex employability problems facing eligible veterans.

Projects that support the President's commitment to "Green Energy Jobs" and propose a clear strategy for training and employment in the renewable energy economy, are considered unique and innovative and will receive priority consideration.

The full Solicitation for Grant Application is posted on *http://www.grants.gov* under U.S. Department of Labor/VETS. Applications submitted through *http://www.grants.gov* or hard copy will be accepted. If you need to speak to a person concerning these grants, you may telephone Cassandra Mitchell at 202–693–4570 (not a toll-free number). If you have issues regarding access to the *http://www.grants.gov* Web site, you may telephone the Contact Center Phone at 1–800–518–4726.

Signed at Washington, DC, this 22nd day of March 2010.

Cassandra R. Mitchell,

Grant Officer.

[FR Doc. 2010–6691 Filed 3–25–10; 8:45 am]

BILLING CODE 4510–79–P

NATIONAL SCIENCE FOUNDATION

Notice of Intent To Seek Approval To Extend and Revise a Current Information Collection

AGENCY: National Science Foundation.

ACTION: Notice and request for comments.

SUMMARY: The National Science Foundation (NSF) is announcing plans to request renewal of this collection. In accordance with the requirement of section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995 (Pub. L. 104–13), we are providing opportunity for public

comment on this action. After obtaining and considering public comment, NSF will prepare the submission requesting that OMB approve clearance of this collection for three years.

DATES: Written comments on this notice must be received by May 25, 2010 to be assured of consideration. Comments received after that date will be considered to the extent practicable.

For Additional Information or Comments: Contact Suzanne H. Plimpton, Reports Clearance Officer, National Science Foundation, 4201 Wilson Boulevard, Suite 295, Arlington, Virginia 22230; telephone (703) 292–7556; or send e-mail to *splimpto@nsf.gov*. Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339, which is accessible 24 hours a day, 7 days a week, 365 days a year (including Federal holidays). You also may obtain a copy of the data collection instrument and instructions from Ms. Plimpton.

Comments: Comments are invited on (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Agency, including whether the information shall have practical utility; (b) the accuracy of the Agency's estimate of the burden of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information on respondents, including through the use of automated collection techniques or other forms of information technology; and (d) ways to minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

SUPPLEMENTARY INFORMATION:

Title of Collection: Higher Education Research and Development Survey; OMB Control Number 3145–0100.

Expiration Date of Current Approval: August 31, 2011.

Proposed Renewal Project: The Survey of Research and Development Expenditures at Universities and Colleges originated in fiscal year (FY) 1954 and has been conducted annually since FY 1972. The survey is the academic research and development component of the NSF statistical program that seeks to provide a "central clearinghouse for the collection, interpretation, and analysis of data on the availability of, and the current and projected need for, scientific and technical resources in the United States, and to provide a source of information for policy formulation by other agencies of the federal government," as mandated in the National Science Foundation Act of 1950.

Since 2007, NSF has been working on a redesign and expansion of the survey to better reflect the current state of academic R&D. The redesigned survey was renamed the Higher Education R&D Survey and was pilot tested with a random sample of 40 institutions during the FY 2009 survey cycle. Beginning with the FY 2010 cycle, the redesigned survey will be administered to the full population of research-performing academic institutions.

Use of the Information: The proposed project will continue the annual survey cycle for three years. The FY 2010 Higher Education R&D Survey will be administered to an expected minimum of 760 institutions. A shorter version of the survey asking for R&D expenditures by source of funding and character of work (basic, applied, or development) will be administered to the 38 Federally Funded Research and Development Centers.

The Higher Education R&D Survey will provide continuity of statistics on R&D expenditures by source of funding and field of research, with separate data requested on current fund expenditures for research equipment by field. Further breakdowns are collected on funds passed through to subrecipients and funds received as a subrecipient, and on R&D expenditures by field from specific Federal agency sources. New items on the survey include R&D expenditures funded from foreign sources, R&D within an institution's medical school, interdisciplinary R&D expenditures, and R&D expenditures by type of funding mechanism (contracts vs. grants) and cost category (salaries, equipment, software, *etc.*). Other new items request non-expenditure information such as headcounts of research personnel, counts of R&D proposals submitted, and counts and total dollar values of R&D awards.

Data are published in NSF's annual publication series *Academic R&D Expenditures* and are available electronically on the World Wide Web.

The survey is a fully automated Web data collection effort and is handled primarily by administrators in university sponsored programs and accounting offices. To minimize burden, institutions are provided with an abundance of guidance and resources on the Web, and are able to respond via a downloadable excel spreadsheet if desired. Each institution's record is pre-loaded with the 2 previous years of comparable data that facilitate editing and trend checking. Response to this voluntary survey has exceeded 95 percent each year, and response to the pilot test of the new survey is expected to be 100 percent.

The average burden report for the FY 2009 pilot test institutions was 66 hours, 21 hours of one-time programming and 45 hours of annual reporting burden.

Dated: March 23, 2010.

Suzanne H. Plimpton,

Reports Clearance Officer, National Science Foundation.

[FR Doc. 2010–6761 Filed 3–25–10; 8:45 am]

BILLING CODE 7555–01–P

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50–245, 50–336, and 50–423; NRC–2010–0128]

Dominion Nuclear Connecticut, Inc.; Millstone Power Station, Unit Nos. 1, 2, and 3; Environmental Assessment and Finding of No Significant Impact

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an Exemption, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 73.5, "Specific exemptions," from the implementation date for certain new requirements of 10 CFR Part 73, "Physical protection of plants and materials," for Facility Operating License Nos. DPR–21, DPR–65, and NPF–49, issued to Dominion Nuclear Connecticut, Inc. (DNC or the licensee) for operation of Millstone Power Station, Unit Nos. 1, 2, and 3 (MPS1, MPS2, and MPS3, respectively), located in New London County, Connecticut. In accordance with 10 CFR 51.21, the NRC prepared an environmental assessment documenting its finding. The NRC concluded that the proposed actions will have no significant environmental impact.

Environmental Assessment

Identification of the Proposed Action

The proposed action would exempt MPS1, MPS2, and MPS3 from the required implementation date of March 31, 2010, for several new requirements of 10 CFR part 73. Specifically, MPS1, MPS2, and MPS3 would be granted an exemption from being in full compliance with certain new requirements contained in 10 CFR 73.55 by the March 31, 2010, deadline. DNC has proposed an alternate full compliance implementation date of September 30, 2010, approximately 6 months beyond the date required by 10

CFR part 73, for certain alarm station requirements. DNC has also proposed an alternate full compliance date of August 31, 2010, 5 months beyond the date required by 10 CFR part 73, for certain uninterruptible power supply requirements. The proposed action, an extension of the schedule for completion of certain actions required by the revised 10 CFR part 73, does not involve any physical changes to the reactor, fuel, plant structures, support structures, water, or land at MPS1, MPS2, and MPS3 site.

The proposed action is in accordance with the licensee's application dated January 12, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML100131116), as supplemented by letter dated January 12, 2010 (ADAMS Accession No. ML100131115).

The Need for the Proposed Action

The proposed action is needed to provide the licensee with additional time to perform the required upgrades to the combined MPS1, MPS2, and MPS3 security system due to the procurement needs and installation activities.

Environmental Impacts of the Proposed Action

The NRC has completed its environmental assessment of the proposed exemption. The NRC staff has concluded that the proposed action to extend the implementation deadline would not significantly affect plant safety and would not have a significant adverse effect on the probability of an accident occurring.

The proposed action would not result in an increased radiological hazard beyond those previously analyzed in the environmental assessment and finding of no significant impact made by the Commission in promulgating its revisions to 10 CFR part 73 as discussed in a **Federal Register** notice dated March 27, 2009 (74 FR 13926). There will be no change to radioactive effluents that affect radiation exposures to plant workers and members of the public. Therefore, no changes or different types of radiological impacts are expected as a result of the proposed exemption.

The proposed action does not result in changes to land use or water use, or result in changes to the quality or quantity of non-radiological effluents. No changes to the National Pollution Discharge Elimination System permit are needed. No effects on the aquatic or terrestrial habitat in the vicinity of the plant, or to threatened, endangered, or protected species under the Endangered Species Act, or impacts to essential fish habitat covered by the Magnuson-Steven's Act are expected. There are no impacts to the air or ambient air quality.

There are no impacts to historical and cultural resources. There would be no impact to socioeconomic resources. Therefore, no changes to or different types of non-radiological environmental impacts are expected as a result of the proposed exemption.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action. In addition, in promulgating its revisions to 10 CFR part 73, the Commission prepared an environmental assessment and published a finding of no significant impact (74 FR 13926).

The NRC staff's safety evaluation will be provided in the exemption that will be issued as part of the letter to the licensee approving the exemption to the regulation, if granted.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the NRC staff considered denial of the proposed action (i.e., the "no-action" alternative). Denial of the exemption request would result in no change in current environmental impacts. If the proposed action was denied, the licensee would have to comply with the March 31, 2010, implementation deadline. The environmental impacts of the proposed exemption and the "no action" alternative are similar.

Alternative Use of Resources

The action does not involve the use of any different resources than those considered in the Final Environmental Statement (FES) for MPS1, dated June 1973, or the FES for MPS2, dated June 1973, as supplemented through the "Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Millstone Power Station, Units 2 and 3—Final Report (NUREG–1437, Supplement 22)," or the FES for MPS3, NUREG–1064, dated December 1984, as supplemented through the "Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Millstone Power Station, Units 2 and 3—Final Report (NUREG–1437, Supplement 22)."

Agencies and Persons Consulted

In accordance with its stated policy, on February 18, 2010, the NRC staff consulted with the Connecticut State official, Mr. Michael Firsick of the Connecticut Department of Environmental Protection regarding the environmental impact of the proposed action. The State official had no comments.

Finding of No Significant Impact

On the basis of the environmental assessment, 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 not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated January 12, 2010, as supplemented by letter dated January 12, 2010. Portions of the submittal contain safeguards information and, accordingly, are not available to the public. Other parts of these documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Room O–1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland 20852. Publicly available records will be accessible electronically from the Agencywide Document Access and Management System (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 send an e-mail to *pdr.resource@nrc.gov.*

Dated at Rockville, Maryland, this 19th day of March, 2010.

For The Nuclear Regulatory Commission.

Carleen J. Sanders,

Project Manager, Plant Licensing Branch I–2, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. 2010–6719 Filed 3–25–10; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

[Docket No. 50–346; NRC–2010–0125]

FirstEnergy Nuclear Operating Company, Davis-Besse Nuclear Power Station; Environmental Assessment and Finding of No Significant Impact

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an Exemption, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 73.5, "Specific exemptions," from the implementation date for certain new requirements of 10 CFR part 73, "Physical protection of plants and

materials," for Facility Operating License No. NPF–3, issued to FirstEnergy Nuclear Operating Company (FENOC, the licensee), for operation of the Davis-Besse Nuclear Power Station, Unit 1 (DBNPS), located in Ottawa County, Ohio. Therefore, as required by 10 CFR 51.21, the NRC performed an environmental assessment. Based on the results of this environmental assessment, the NRC is issuing a finding of no significant impact.

Environmental Assessment

Identification of the Proposed Action

The proposed action would exempt the DBNPS from the required implementation date of March 31, 2010, for a certain new requirement of 10 CFR part 73. Specifically, DBNPS would be granted an exemption from being in full compliance with certain new requirements contained in 10 CFR 73.55 by the March 31, 2010, deadline. FENOC has proposed an alternate full compliance date of February 3, 2011, approximately 11 months beyond the date required by 10 CFR part 73. The proposed action, an extension of the schedule for completion of certain actions required by the revised 10 CFR part 73, does not involve any physical changes to the reactor, fuel, plant structures, support structures, water or land at the DBNPS site.

The proposed action is in accordance with the licensee's application dated November 30, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML093370138, not publicly available, contains security-related information), as supplemented on December 23, 2009 (ADAMS Accession No. ML093650293, not publicly available, contains security-related information).

The Need for the Proposed Action

The proposed action is needed to provide the licensee with additional time to perform and design the necessary modifications, procure equipment and material, and implement upgrades to comply with a specific aspect of 10 CFR 73.55.

Environmental Impacts of the Proposed Action

The NRC has completed its evaluation of the proposed exemption. The staff has concluded that the proposed action to extend the implementation deadline would not significantly affect plant safety and would not have a significant adverse effect on the probability of an accident occurring.

The details of the staff's safety evaluation will be provided in the exemption that will be issued as part of the letter to the licensee approving the exemption.

The proposed action would not result in an increased radiological hazard beyond those previously analyzed in the environment assessment and finding of no significant impact made by the Commission in promulgating its revisions to 10 CFR, part 73 as discussed in a **Federal Register** notice dated March 27, 2009 (74 FR 13967). There will be no change to radioactive effluents that effect radiation exposures to plant workers and members of the public. Therefore, no changes or different types of radiological impacts are expected as a result of the proposed exemption.

The proposed action does not result in changes to land use or water use, or result in changes to the quality or quantity of non-radiological effluents. No changes to the National Pollution Discharge Elimination System permit are needed. No effects on the aquatic or terrestrial habitat in the vicinity of the plant, or to threatened, endangered, or protected species under the Endangered Species Act, or impacts to essential fish habitat covered by the Magnuson-Steven's Act are expected. There are no impacts to the air or ambient air quality.

There are no impacts to historical and cultural resources. There would be no impact to socioeconomic resources. Therefore, no changes to or different types of non-radiological environmental impacts are expected as a result of the proposed exemption.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action. In addition, in promulgating its revisions to 10 CFR, part 73, the Commission prepared an environment assessment and published a finding of no significant impact (Part 73, Power Reactor Security Requirements, 74 FR 13926, 13967 (March 27, 2009)).

The licensee currently maintains a security system acceptable to the NRC. The new 10 CFR part 73 security measures that would be implemented by March 31, 2010, would continue to provide acceptable onsite physical protections of DBNPS. Therefore, the extension of the implementation date of the new requirements of 10 CFR part 73 to February 3, 2011, would not have any significant environmental impacts.

The NRC staff's safety evaluation will be provided in the exemption that will be issued as part of the letter to the licensee approving the exemption to the regulation, if granted.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the "no-action" alternative). Denial of the application would result in no change in current environmental impacts. If the proposed action was denied, the licensee would have to comply with the March 31, 2010, implementation deadline. The environmental impacts of the proposed action and the "no-action" alternative action are similar.

Alternative Use of Resources

The action does not involve the use of any different resources than those previously considered in the Final Environmental Statement, NUREG–75/097, dated October 1975, for the DBNPS.

Agencies and Persons Consulted

In accordance with its stated policy, on February 24, 2009, the staff consulted with the Ohio State official, Ms. Carol O'Claire of the Ohio Emergency Management Agency, regarding the environmental impact of the proposed action. The State official had no comments.

Finding of No Significant Impact

On the basis of the environmental assessment, 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 not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated November 30, 2009, as supplemented on December 23, 2009. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Room O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management System (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 send an e-mail to *pdr.resource@nrc.gov*.

Dated at Rockville, Maryland, this 18th day of March 2010.

For the Nuclear Regulatory Commission

Michael Mahoney,

Project Manager, Plant Licensing Branch III–2, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. 2010–6758 Filed 3–25–10; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

[Docket No. 50–333; NRC–2010–0136]

James A. FitzPatrick Nuclear Power Plant; Environmental Assessment and Finding of No Significant Impact

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an exemption, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 73.5, "Specific exemptions," from the implementation date for certain new requirements of 10 CFR Part 73, "PHYSICAL PROTECTION OF PLANTS AND MATERIALS," for Facility Operating License No. DPR–59, issued to Entergy Nuclear Operations, Inc. (the licensee), for the operation of the James A. FitzPatrick Nuclear Power Plant (JAFNPP) located in Oswego County, NY. In accordance with 10 CFR 51.21, the NRC prepared an environmental assessment. Based on the results of the environmental assessment, the NRC is issuing a finding of no significant impact.

Environmental Assessment

Identification of the Proposed Action

The proposed action would exempt JAFNPP from the required implementation date of March 31, 2010, for several new requirements of 10 CFR part 73. Specifically, JAFNPP would be granted an exemption from being in full compliance with certain new requirements contained in 10 CFR 73.55 by the March 31, 2010, deadline. JAFNPP has proposed an alternate full compliance implementation date of December 31, 2010, approximately 9 months beyond the date required by 10 CFR part 73. The proposed action, an extension of the schedule for completion of certain actions required by the revised 10 CFR part 73, does not involve any physical changes to the reactor, fuel, plant structures, support structures, water, or land at the JAFNPP site.

The proposed action is in accordance with the licensee's application dated January 21, 2010, as supplemented by letters dated February 25 and March 2, 2010.

The Need for the Proposed Action

The proposed action is needed to provide the licensee with additional time to perform the required upgrades to the JAFNPP security system due to design, resource and logistical impacts from adverse winter weather and from material delivery dates.

Environmental Impacts of the Proposed Action

The NRC has completed its environmental assessment of the proposed exemption. The staff has concluded that the proposed action to extend the implementation deadline would not significantly affect plant safety and would not have a significant adverse effect on the probability of an accident occurring.

The proposed action would not result in an increased radiological hazard beyond those previously analyzed in the environmental assessment and finding of no significant impact made by the Commission in promulgating its revisions to 10 CFR part 73 as discussed in a **Federal Register** notice dated March 27, 2009 (74 FR 13926). There will be no change to radioactive effluents that affect radiation exposures to plant workers and members of the public. Therefore, no changes or different types of radiological impacts are expected as a result of the proposed exemption.

The proposed action does not result in changes to land use or water use, or result in changes to the quality or quantity of non-radiological effluents. No changes to the National Pollution Discharge Elimination System permit are needed. No effects on the aquatic or terrestrial habitat in the vicinity of the plant, or to threatened, endangered, or protected species under the Endangered Species Act, or impacts to essential fish habitat covered by the Magnuson-Steven's Act are expected. There are no impacts to the air or ambient air quality. There are no impacts to historical and cultural resources. There would be no impact to socioeconomic resources. Therefore, no changes to or different types of non-radiological environmental impacts are expected as a result of the proposed exemption.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action. In addition, in promulgating its revisions to 10 CFR part 73, the Commission prepared an environmental assessment and published a finding of no significant impact part 73, Power Reactor Security Requirements, 74 FR 13926, (March 27, 2009).

The NRC staff's safety evaluation will be provided in the exemption that will be issued as part of the letter to the licensee approving the exemption to the regulation, if granted.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the NRC staff considered denial of the proposed actions (*i.e.,* the "no-action" alternative). Denial of the exemption request would result in no change in current environmental impacts. If the proposed action was denied, the licensee would have to comply with the March 31, 2010, implementation deadline. The environmental impacts of the proposed exemption and the "no action" alternative are similar.

Alternative Use of Resources

The action does not involve the use of any different resources than those considered in the "Final Environmental Statement related to operation of James A. FitzPatrick Nuclear Power Plant Power Authority of the State of New York, Docket No. 50–333," dated March 1973, as supplemented through the "Generic Environmental Impact Statement for License Renewal of Nuclear Plants: Supplement 31 Regarding James A. FitzPatrick Nuclear Power Plant, Final Report" (NUREG—1437, Supplement 31), January 2008.

Agencies and Persons Consulted

In accordance with its stated policy, on February 19, 2010, the NRC staff consulted with the New York State official, Alyse Peterson, of the New York State Energy Research and Development Authority, regarding the environmental impact of the proposed action. The State official had no comments.

Finding of No Significant Impact

On the basis of the environmental assessment, 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 not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated January 21, 2010, as supplemented by letters dated February 25 and March 2, 2010. Portions of the submittal dated January 21, 2010, as supplemented by letter dated February 25, 2010, contain sensitive security related information and, accordingly, are withheld from public disclosure in accordance with 10 CFR 2.390. The letter dated March 2, 2010, is the redacted version of the letter dated February 25, 2010. Publicly available

versions of the licensee's letter dated January 21, 2010, and the letter dated March 2, 2010, are accessible electronically from the Agencywide Documents Access and Management System (ADAMS) with Accession Nos. ML100270022 and ML100680660, respectively. Publicly available versions of the documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Room O–1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland 20852. Publicly available records will be accessible electronically from the Agencywide Document Access and Management System (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 send an e-mail to *pdr.resource@nrc.gov.*

Dated at Rockville, Maryland, this 19th day of March 2010.

For The Nuclear Regulatory Commission.

Bhalchandra K. Vaidya,

Project Manager, Plant Licensing Branch I–1, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. 2010–6760 Filed 3–25–10; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

[Docket No. 50–440; NRC–2010–0124]

FirstEnergy Nuclear Operating Company; Perry Nuclear Power Plant; Environmental Assessment and Finding of No Significant Impact

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an Exemption, pursuant to Title 10 of the Code of Federal Regulations (10 CFR) section 73.5, "Specific exemptions," from the implementation date for certain new requirements of 10 CFR part 73, "Physical protection of plants and materials," for Facility Operating License No. NPF–58, issued to FirstEnergy Nuclear Operating Company (FENOC, the licensee), for operation of the Perry Nuclear Power Plant, Unit 1 (PNPP), located in Ottawa County, Ohio. Therefore, as required by 10 CFR 51.21, the NRC performed an environmental assessment. Based on the results of this environmental assessment, the NRC is issuing a finding of no significant impact.

Environmental Assessment

Identification of the Proposed Action

The proposed action would exempt the PNPP from the required implementation date of March 31, 2010, for a certain new requirement of 10 CFR part 73. Specifically, PNPP would be granted an exemption from being in full compliance with certain new requirements contained in 10 CFR 73.55 by the March 31, 2010, deadline. FENOC has proposed an alternate full compliance date of November 25, 2010, approximately 8 months beyond the date required by 10 CFR part 73. The proposed action, an extension of the schedule for completion of certain actions required by the revised 10 CFR part 73, does not involve any physical changes to the reactor, fuel, plant structures, support structures, water or land at the PNPP site.

The proposed action is in accordance with the licensee's application dated November 30, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML093370151, not publically available, contains security-related information), as supplemented on December 23, 2009 (ADAMS Accession No. ML093650293, not publically available, contains security-related information).

The Need for the Proposed Action

The proposed action is needed to provide the licensee with additional time to perform to design the necessary modifications, procure equipment and material, and implement upgrades to comply with a specific aspect of 10 CFR 73.55.

Environmental Impacts of the Proposed Action

The NRC has completed its evaluation of the proposed exemption. The staff has concluded that the proposed action to extend the implementation deadline would not significantly affect plant safety and would not have a significant adverse effect on the probability of an accident occurring.

The details of the staff's safety evaluation will be provided in the exemption that will be issued as part of the letter to the licensee approving the exemption.

The proposed action would not result in an increased radiological hazard beyond those previously analyzed in the environment assessment and finding of no significant impact made by the Commission in promulgating its revisions to 10 CFR part 73 as discussed in a **Federal Register** notice dated March 27, 2009 (74 FR 13967). There will be no change to radioactive effluents that effect radiation exposures to plant workers and members of the public. Therefore, no changes or different types of radiological impacts are expected as a result of the proposed exemption.

The proposed action does not result in changes to land use or water use, or result in changes to the quality or quantity of non-radiological effluents. No changes to the National Pollution Discharge Elimination System permit are needed. No effects on the aquatic or terrestrial habitat in the vicinity of the plant, or to threatened, endangered, or protected species under the Endangered Species Act, or impacts to essential fish habitat covered by the Magnuson-Steven's Act are expected. There are no impacts to the air or ambient air quality.

There are no impacts to historical and cultural resources. There would be no impact to socioeconomic resources. Therefore, no changes to or different types of non-radiological environmental impacts are expected as a result of the proposed exemption.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action. In addition, in promulgating its revisions to 10 CFR part 73, the Commission prepared an environment assessment and published a finding of no significant impact (part 73, Power Reactor Security Requirements, 74 FR 13926, 13967 (March 27, 2009)).

The NRC staff's safety evaluation will be provided in the exemption that will be issued as part of the letter to the licensee approving the exemption to the regulation, if granted.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the "no-action" alternative). Denial of the application would result in no change in current environmental impacts. If the proposed action was denied, the licensee would have to comply with the March 31, 2010, implementation deadline. The environmental impacts of the proposed action and the "no-action" alternative action are similar.

Alternative Use of Resources

The action does not involve the use of any different resources than those previously considered in the Final Environmental Statement, NUREG–0884 dated August 1982, for the PNPP.

Agencies and Persons Consulted

In accordance with its stated policy, on February 24, 2009, the staff consulted with the Ohio State official, Ms. Carol O'Claire of the Ohio Emergency Management Agency, regarding the environmental impact of the proposed action. The State official had no comments.

Finding of No Significant Impact

On the basis of the environmental assessment, 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 not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated November 30, 2009, as supplemented on December 23, 2009. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Room O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management System (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 send an e-mail to *pdr.resource@nrc.gov.*

Dated at Rockville, Maryland, this 18th day of March 2010.

For the Nuclear Regulatory Commission.

Michael Mahoney,

Project Manager, Plant Licensing Branch III–2, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. 2010–6751 Filed 3–25–10; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

[Docket Nos. 50–003, 50–247, and 50–286; NRC–2010–0137]

Entergy Nuclear Operations, Inc.; Indian Point Nuclear Generating Unit Nos. 1, 2, and 3; Environmental Assessment and Finding of No Significant Impact

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an exemption, pursuant to Title 10 of the Code of Federal Regulations (10 CFR) Section 73.5, "Specific exemptions," from the implementation date for certain new requirements of 10 CFR part 73, "PHYSICAL PROTECTION OF PLANTS AND MATERIALS," for Facility Operating License Nos. DPR–5, DPR–26, and DPR–64, issued to Entergy Nuclear Operations, Inc. (the licensee), for operation of Indian Point Nuclear Generating Unit Nos. 1, 2, and 3 (IP1, IP2, and IP3), located in Westchester County, NY. In accordance with 10 CFR 51.21, the NRC prepared an environmental assessment documenting its finding. The NRC concluded that the proposed actions will have no significant environmental impact.

Environmental Assessment

Identification of the Proposed Action

The proposed action would exempt IP1, IP2, and IP3 from the required implementation date of March 31, 2010, for several new requirements of 10 CFR part 73. Specifically, IP1, IP2, and IP3 would be granted an exemption from being in full compliance with certain new requirements contained in 10 CFR 73.55 by the March 31, 2010, deadline. The licensee has proposed an alternate full compliance implementation date of February 17, 2011, approximately 11 months beyond the date required by 10 CFR part 73. The proposed action, an extension of the schedule for completion of certain actions required by the revised 10 CFR part 73, does not involve any physical changes to the reactor, fuel, plant structures, support structures, water, or land at the IP1, IP2, and IP3 site.

The proposed action is in accordance with the licensee's application dated January 28, 2010, as supplemented by letter dated March 8, 2010.

The Need for the Proposed Action

The proposed action is needed to provide the licensee with additional time for design, procurement, and installation activities and in consideration of impediments to construction such as winter weather conditions and equipment delivery schedules.

Environmental Impacts of the Proposed Action

The NRC has completed its environmental assessment of the proposed exemption. The staff has concluded that the proposed action to extend the implementation deadline would not significantly affect plant safety and would not have a significant adverse effect on the probability of an accident occurring.

The proposed action would not result in an increased radiological hazard beyond those previously analyzed in the environmental assessment and finding of no significant impact made by the Commission in promulgating its revisions to 10 CFR part 73 as discussed in a **Federal Register** notice dated March 27, 2009 (74 FR 13926). There will be no change to radioactive effluents that affect radiation exposures to plant workers and members of the public. Therefore, no changes or different types of radiological impacts are expected as a result of the proposed exemption.

The proposed action does not result in changes to land use or water use, or result in changes to the quality or quantity of non-radiological effluents. No changes to the National Pollution Discharge Elimination System permit are needed. No effects on the aquatic or terrestrial habitat in the vicinity of the plant, or to threatened, endangered, or protected species under the Endangered Species Act, or impacts to essential fish habitat covered by the Magnuson-Steven's Act are expected. There are no impacts to the air or ambient air quality.

There are no impacts to historical and cultural resources. There would be no impact to socioeconomic resources. Therefore, no changes to or different types of non-radiological environmental impacts are expected as a result of the proposed exemption.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action. In addition, in promulgating its revisions to 10 CFR part 73, the Commission prepared an environmental assessment and published a finding of no significant impact (see Part 73, Power Reactor Security Requirements, 74 FR 13926 (March 27, 2009)).

IP1, IP2, and IP3's current security program and the new requirements that will be implemented by March 31, 2010, will provide continued assurance of public health and safety and common defense and security in lieu of the full compliance with all the requirements specified in 10 CFR part 73. Therefore, the extension of the implementation date of some of the new requirements of 10 CFR part 73 to February 17, 2011, would not have any significant environmental impacts.

The NRC staff's safety evaluation will be provided in the exemption that will be issued as part of the letter to the licensee approving the exemption to the regulation, if granted.

Environmental Impacts of the Alternatives to the Proposed Action

As an alternative to the proposed action, the NRC staff considered denial of the proposed action (*i.e.,* the "no-action" alternative). Denial of the exemption request would result in no change in current environmental impacts. If the proposed action was denied, the licensee would have to comply with the March 31, 2010, implementation deadline. The environmental impacts of the proposed exemption and the "no action" alternative are similar.

Alternative Use of Resources

The action does not involve the use of any different resources than those considered in (1) The "Indian Point Unit No. 1, Environmental Report and Benefit Cost Analysis," June 1973; (2) The "Final Environmental Statement Related to Operation of Indian Point Generating Plant Unit No. 2," dated September 1972, and (3) the "Final Environmental Statement Related to Operation of Indian Point Generating Plant Unit No. 3," dated February 1975.

Agencies and Persons Consulted

In accordance with its stated policy, on March 4, 2010, the NRC staff consulted with the New York State official, Alyse Peterson, of the New York State Energy Research and Development Authority, regarding the environmental impact of the proposed action. The State official had no comments.

Finding of No Significant Impact

On the basis of the environmental assessment, 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 not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee's letter dated January 28, 2010. Portions of the submittal dated January 28, 2010, contain security-related information and, accordingly, are withheld from public disclosure in accordance with 10 CFR 2.390(d)(1). The licensee's supplemental letter dated March 8, 2010, is withheld in its entirety as security-related information in accordance with 10 CFR 2.390(d)(1). A publicly available version of the letter dated January 28, 2010, is accessible electronically from the Agencywide Documents Access and Management System (ADAMS) with Accession No. ML100340142. The publicly available version of the document 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 O–1F21, 11555 Rockville Pike (first floor), Rockville, Maryland 20852. 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 send an e-mail to *pdr.resource@nrc.gov.*

Dated at Rockville, Maryland, this 19th day of March 2010.

For the Nuclear Regulatory Commission.

John P. Boska,

Senior Project Manager, Plant Licensing Branch I–1, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. 2010–6726 Filed 3–25–10; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

[Docket No. 50–397; NRC–2010–0084]

Energy Northwest Columbia Generating Station; Exemption

1.0 Background

Energy Northwest (the licensee) is the holder of Facility Operating License No. NPF–21 which authorizes operation of the Columbia Generating Station (CGS). The license provides, among other things, that the facility is subject to the rules, regulations, and orders of the Nuclear Regulatory Commission (NRC, the Commission) now or hereafter in effect.

The facility consists of a boiling-water reactor located in Benton County, Washington.

2.0 Request/Action

Title 10 of the Code of Federal Regulations (10 CFR), Part 73, "Physical protection of plants and materials," Section 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage," published in the **Federal Register** on March 27, 2009, effective May 26, 2009, with a full implementation date of March 31, 2010, requires licensees to protect, with high assurance, against radiological sabotage by designing and implementing comprehensive site security programs. The amendments to 10 CFR 73.55 published on March 27, 2009 (74 FR 13926), establish and update generically applicable security requirements similar to those previously imposed by Commission orders issued after the terrorist attacks of September 11, 2001, and implemented by licensees. In addition, the amendments to 10 CFR 73.55 include additional requirements to further enhance site security based upon insights gained from implementation of the post-September 11, 2001, security orders. It is from one of these additional requirements that the licensee now seeks an exemption from the March 31, 2010, implementation date. All other physical security requirements established by this recent rulemaking have already been or will be implemented by the licensee by March 31, 2010.

By application dated January 27, 2010, the licensee requested an exemption in accordance with 10 CFR 73.5, "Specific exemptions." Attachment 1 to the licensee's letter contains security-related information and, accordingly, those portions of the letters are being withheld from public disclosure. A redacted version of the licensee's exemption request dated January 27, 2010, is publicly available in the Agencywide Documents Access and Management System (ADAMS) Accession No. ML100481052. The licensee has requested an exemption from the March 31, 2010, compliance date stating that it must accommodate a potential manufacturing delay that would result in a non-compliance of the new security requirements. Specifically, the request is to extend the implementation date from the current March 31, 2010, deadline to May 15, 2010. Granting this exemption for the one item would afford the licensee additional time to perform necessary upgrades to meet or exceed the regulatory requirements.

3.0 Discussion of Part 73 Schedule Exemptions from the March 31, 2010, Full Implementation Date

Pursuant to 10 CFR 73.55(a)(1), "By March 31, 2010, each nuclear power reactor licensee, licensed under 10 CFR part 50, shall implement the requirements of this section through its Commission-approved Physical Security Plan, Training and Qualification Plan, Safeguards Contingency Plan, and Cyber Security Plan referred to collectively hereafter as 'security plans.'" Pursuant to 10 CFR 73.5, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR part 73 when the exemptions are authorized by law, and will not endanger life or property or the common

defense and security, and are otherwise in the public interest.

NRC approval of this exemption, as noted above, would allow an extension from March 31, 2010, until May 15, 2010, of the implementation date for one specific requirement of the new rule. As stated above, 10 CFR 73.5 allows the NRC to grant exemptions from the requirements of 10 CFR part 73. The NRC staff has determined that granting of the licensee's proposed exemption would not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations. Therefore, the exemption is authorized by law.

In the draft final rule provided to the Commission, the NRC staff proposed that the requirements of the new regulation be met within 180 days. The Commission directed a change from 180 days to approximately 1 year for licensees to fully implement the new requirements. This change was incorporated into the final rule. From this, it is clear that the Commission wanted to provide a reasonable timeframe for licensees to achieve full compliance.

As noted in the final rule, the Commission also anticipated that licensees would have to conduct site-specific analyses to determine what changes were necessary to implement the rule's requirements, and that changes could be accomplished through a variety of licensing mechanisms, including exemptions. Since issuance of the final rule, the Commission has rejected a generic industry request to extend the rule's compliance date for all operating nuclear power plants, but noted that the Commission's regulations provide mechanisms for individual licensees, with good cause, to apply for relief from the compliance date, as documented in the letter from R. W. Borchardt (NRC) to M. S. Fertel (Nuclear Energy Institute) dated June 4, 2009. The licensee's request for an exemption is therefore consistent with the approach set forth by the Commission and discussed in the June 4, 2009, letter.

CGS Schedule Exemption Request

The licensee provided detailed information in the Attachments to its letter dated January 27, 2010, requesting an exemption. The licensee is requesting additional time to perform necessary upgrades to the CGS security system due to manufacturing delays of one item at the vendor. The licensee describes a comprehensive plan to perform upgrades to the security capabilities of its CGS site and provides a timeline for achieving full compliance with the new regulation. Attachment 1 to the licensee's letter contains security-related information regarding the site security plan, details of the specific requirement of the regulation for which the site cannot be in compliance by the March 31, 2010 deadline, justification for the exemption request, a description of the required changes to the site's security configuration, and a timeline with the activities that would bring enable the licensee to achieve full compliance by May 15, 2010. The timeline provides dates indicating when the critical equipment will be received, installed, and become operational. Redacted versions of the licensee's exemption request are included in Attachments 2 and 3 to its January 27, 2010 letter and are publicly available in ADAMS Accession No. ML100481052.

Notwithstanding the schedule exemptions for these limited requirements, the licensee will continue to be in compliance with all other applicable physical security requirements as described in 10 CFR 73.55 and reflected in its current NRC-approved physical security program. By May 15, 2010, CGS will be in full compliance with the regulatory requirements of 10 CFR 73.55, as issued on March 27, 2009.

4.0 Conclusion for Part 73 Schedule Exemption Request

The staff has reviewed the licensee's submittal and concludes that the licensee has justified its request for an extension of the compliance date to May 15, 2010 with regard to one specified requirement of 10 CFR 73.55.

Accordingly, the Commission has determined that pursuant to 10 CFR 73.5, "Specific exemptions," an exemption from the March 31, 2010, compliance date is authorized by law and will not endanger life or property or the common defense and security, and is otherwise in the public interest. Therefore, the Commission hereby grants the requested exemption.

The long-term benefits that will be realized when the CGS modifications are complete justify extending the full compliance date in the case of this particular licensee. The security measure for which CGS needs additional time to complete is a new requirement imposed by March 27, 2009 amendments to 10 CFR 73.55, and is in addition to those required by the security orders issued in response to the events of September 11, 2001. Therefore, the NRC concludes that the licensee's actions are in the best interest of protecting the public health and safety through the security changes that will result from granting this exemption.

As per the licensee's request and the NRC's regulatory authority to grant an exemption from the March 31, 2010, deadline for the one item specified in the Attachments to the licensee's letter dated January 27, 2010, the licensee is required to be in full compliance with 10 CFR 73.55 by May 15, 2010. In achieving compliance, the licensee is reminded that it is responsible for determining the appropriate licensing mechanism (i.e., 10 CFR 50.54(p) or 10 CFR 50.90) for incorporation of all necessary changes to its security plans.

Pursuant to 10 CFR 51.32, "Finding of no significant impact," the Commission has previously determined that the granting of this exemption will not have a significant effect on the quality of the human environment [75 FR 10834; March 9, 2010].

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 19th day of March 2010.

For the Nuclear Regulatory Commission.

Allen G. Howe,

Acting Director, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. 2010–6718 Filed 3–25–10; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

[Docket No. 50–443; NRC–2010–0108]

NextEra Energy Seabrook, LLC, et al.*; Seabrook Station, Unit No. 1; Exemption

1.0 Background

NextEra Energy Seabrook, LLC, (the licensee) is the holder of Facility Operating License No. NPF–86, which authorizes operation of the Seabrook Station Unit No. 1 (Seabrook). The license provides, among other things, that the facility is subject to all rules, regulations, and orders of the U.S. Nuclear Regulatory Commission (NRC, the Commission) now or hereafter in effect.

The facility consists of one pressurized water reactor located in Seabrook, New Hampshire.

2.0 Request/Action

Title 10 of the *Code of Federal Regulations* (10 CFR) Part 73, "Physical

* NextEra Energy Seabrook, LLC is authorized to act as agent for the: Hudson Light & Power Department, Massachusetts Municipal Wholesale Electric Company, and Taunton Municipal Light Plant and has exclusive responsibility and control over the physical construction, operation and maintenance of the facility.

protection of plants and materials," Section 73.55, "Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage," published March 27, 2009, effective May 26, 2009, with a full implementation date of March 31, 2010, requires licensees to protect, with high assurance, against radiological sabotage by designing and implementing comprehensive site security programs. The amendments to 10 CFR 73.55 published on March 27, 2009, establish and update generically applicable security requirements similar to those previously imposed by Commission orders issued after the terrorist attacks of September 11, 2001, and implemented by licensees. In addition, the amendments to 10 CFR 73.55 include additional requirements to further enhance site security based upon insights gained from implementation of the post-September 11, 2001, security orders. It is from one of these new requirements that Seabrook now seeks an exemption from the March 31, 2010, implementation date. All other physical security requirements established by this recent rulemaking have already been or will be implemented by the licensee by March 31, 2010.

By letter dated February 25, 2010, as supplemented by letter dated March 5, 2010, the licensee requested an exemption in accordance with 10 CFR 73.5, "Specific exemptions." The licensee's February 25, 2010, and March 5, 2010, letters contain security-related information and, accordingly, portions are withheld from the public pursuant to 10 CFR 2.390(d)(1). The licensee has requested an exemption from the March 31, 2010, compliance date stating that it must complete installation and testing of modifications to the current site security configuration before all requirements can be met. Completion of these activities has been delayed by inclement weather. Specifically, the request is to extend the compliance date for one specific requirement from the current March 31, 2010, deadline to June 4, 2010. Being granted this exemption for the one item would allow the licensee to complete the modifications designed to incorporate state-of-the-art technology to meet the noted regulatory requirement.

3.0 Discussion of Part 73 Schedule Exemptions From the March 31, 2010, Full Implementation Date

Pursuant to 10 CFR 73.55(a)(1), "By March 31, 2010, each nuclear power reactor licensee, licensed under 10 CFR Part 50, shall implement the requirements of this section through its Commission-approved Physical Security Plan, Training and Qualification Plan, Safeguards Contingency Plan, and Cyber Security Plan referred to collectively hereafter as 'security plans.'" Pursuant to 10 CFR 73.5, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR part 73 when the exemptions are authorized by law, and will not endanger life or property or the common defense and security, and are otherwise in the public interest.

NRC approval of this exemption, as noted above, would allow an extension from March 31, 2010, until June 4, 2010, for one specific requirement in the new rule. As stated above, 10 CFR 73.5 allows the NRC to grant exemptions from the requirements of 10 CFR 73. The NRC staff has determined that granting of the licensee's proposed exemption would not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations. Therefore, the exemption is authorized by law.

In the draft final power reactor security rule sent to the Commission, the NRC staff proposed that the requirements of the new regulation be met within 180 days. The Commission directed a change from 180 days to approximately 1 year for licensees to fully implement the new requirements. This change was incorporated into the final rule. From this, it is clear that the Commission wanted to provide a reasonable timeframe for licensees to achieve full compliance.

As noted in the final rule, the Commission also anticipated that licensees would have to conduct site-specific analyses to determine what changes were necessary to implement the rule's requirements, and that changes could be accomplished through a variety of licensing mechanisms, including exemptions. Since issuance of the final rule, the Commission has rejected a request to generically extend the rule's compliance date for all operating nuclear power plants, but noted that the Commission's regulations provide mechanisms for individual licensees, with good cause, to apply for relief from the compliance date (*Reference:* June 4, 2009, letter from R.W. Borchardt, NRC, to M.S. Fertel, Nuclear Energy Institute). The licensee's request for an exemption is therefore consistent with the approach set forth by the Commission and discussed in the June 4, 2009, letter.

Seabrook Schedule Exemption Request

The licensee provided detailed information in Enclosure 1 to the letter dated March 5, 2010. It provides details addressing an upgrade and change of components and provides a date for achieving full compliance with the new regulation. Enclosure 1 also contains details of the specific portion of the regulation with which the site cannot be in compliance by the deadline of March 31, 2010, why the site cannot be in compliance by the deadline, and identifies a date of full compliance of June 4, 2010.

Notwithstanding the schedule exemption for this one requirement, the licensee will continue to be in compliance with all other applicable physical security requirements as described in 10 CFR 73.55 and reflected in its current NRC-approved physical security program. By June 4, 2010, Seabrook indicated that it would be in full compliance with all the regulatory requirements of 10 CFR 73.55 as issued on March 27, 2009.

4.0 Conclusion for Part 73 Schedule Exemption Request

The staff has reviewed the licensee's submittals and concludes that the licensee has provided adequate justification for its request for an extension of the compliance date to June 4, 2010, with regard to one specified requirement of 10 CFR 73.55.

Accordingly, the Commission has determined that pursuant to 10 CFR 73.5, "Specific exemptions," an exemption from the March 31, 2010, compliance date is authorized by law and will not endanger life or property or the common defense and security, and is otherwise in the public interest. Therefore, the Commission hereby grants the requested exemption.

The NRC staff has determined that the long-term benefits that will be realized when the security upgrades are complete justifies extending the March 31, 2010, full compliance date for the one item specified in the licensee's exemption request. The security measure Seabrook needs additional time to implement is a new requirement imposed by March 27, 2009, amendments to 10 CFR 73.55, and is in addition to those required by the security orders issued in response to the events of September 11, 2001. Therefore, the NRC staff concludes that the licensee's actions are in the best interest of protecting the public health and safety through the security changes that will result from granting this exemption.

As per the licensee's request and the NRC's regulatory authority to grant an exemption from the March 31, 2010, deadline for the one item specified in Enclosure 1 of NextEra letter dated

March 5, 2010, the licensee is required to be in full compliance by June 4, 2010. In achieving compliance, the licensee is reminded that it is responsible for determining the appropriate licensing mechanism (*i.e.,* 10 CFR 50.54(p) or 10 CFR 50.90) for incorporation of all necessary changes to its security plans.

Pursuant to 10 CFR 51.32, "Finding of no significant impact," the Commission has previously determined that the granting of this exemption will not have a significant effect on the quality of the human environment [75 FR 13319; dated March 19, 2010].

This exemption is effective upon issuance.

Dated at Rockville, Maryland, this 19th day of March 2010.

For the Nuclear Regulatory Commission.

Allen G. Howe,

Acting Director, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. 2010–6728 Filed 3–25–10; 8:45 am]

BILLING CODE 7590–01–P

NUCLEAR REGULATORY COMMISSION

[NRC–2010–0138]

Office of New Reactors; Proposed Standard Review Plan, Branch Technical Position 7–19 on Guidance for Evaluation of Diversity and Defense-in-Depth in Digital Computer-Based Instrumentation and Control Systems

AGENCY: Nuclear Regulatory Commission (NRC).

ACTION: Solicitation of public comment.

SUMMARY: The NRC staff is soliciting public comment on its Proposed NUREG–0800, "Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants," Branch Technical Position (BTP) 7–19, on Guidance for Evaluation of Diversity and Defense-in-Depth in Digital Computer-Based Instrumentation and Control Systems (Agencywide Documents Access and Management System (ADAMS) Accession No. ML093490771). This BTP is to be cited as the acceptance criteria for Diversity and Defense-in-Depth (D3) in Digital Computer-Based Instrumentation and Control Systems in the Standard Review Plan (SRP), Chapter 7, for those standard reactor designs that have not been certified prior to the date of this BTP.

The NRC staff issues SRPs and BTPs to facilitate timely implementation of current staff guidance and to facilitate activities associated with the review of applications for design certification (DC) and combined licenses (COL) by the Office of New Reactors (NRO). Additionally, the SRPs and BTPs are used by the Office of Nuclear Reactor Regulation (NRR) staff in the review of applications for license amendments in currently operating nuclear power plants (NPPs). The NRC staff will also incorporate the revised SRP section and BTP 7–19 into the next revision of Regulatory Guide 1.206 and any related guidance documents.

DATES: Comments must be filed no later than 60 days from the date of publication of this notice in the **Federal Register**. Comments received after this date will be considered, if it is practical to do so, but the Commission is able to ensure consideration only for comments received on or before this date.

ADDRESSES: You may submit comments by any one of the following methods. Please include Docket ID NRC–2010–0138 in the subject line of your comments. Comments submitted in writing, or in electronic form, will be posted on the NRC Web site and on the Federal rulemaking Web site *http://www.regulations.gov.* Your comments will not be edited to remove any identifying or contact information, the NRC cautions you against including any information in your submission that you do not want to be publicly disclosed.

The NRC requests that any party soliciting or aggregating comments received from other persons for submission to the NRC inform those persons that the NRC will not edit their comments to remove any identifying or contact information, and therefore, they should not include any information in their comments that they do not want publicly disclosed.

Federal Rulemaking Web site: Go to *http://www.regulations.gov* and search for documents filed under Docket ID NRC–2010–0138. Address questions about NRC dockets to Carol Gallagher at 301–492–3668; e-mail at *Carol.Gallagher@nrc.gov.*

Mail comments to: Michael T. Lesar, Chief, Rulemaking and Directives Branch (RDB), Division of Administrative Services, Office of Administration, Mail Stop: TWB–05–B01M, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, or by fax to RDB at 301–492–3446.

The NRC ADAMS provides text and image files of NRC's public documents. These documents may be accessed through the NRC's Public Electronic Reading Room on the Internet at *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 Public Document Room reference staff by telephone at 1–800–397–4209, 301–415–4737, or by e-mail at *pdr.resource@nrc.gov.*

FOR FURTHER INFORMATION CONTACT: Mr. Ian C. Jung, Chief, Instrumentation, Controls and Electrical Engineering Branch 2, Division of Engineering, Office of New Reactors, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001; telephone at 301–415–2969 or e-mail at *Ian.Jung@nrc.gov.*

SUPPLEMENTARY INFORMATION: This SRP, NUREG–0800, has been prepared to establish criteria that the NRO staff use to evaluate if DC and COL applications meet the NRC's regulations. NRR staff also will use these criteria to evaluate whether licensee applications for license amendments for currently operating NPPs conform to NRC regulations. The SRP is not a substitute for the NRC's regulations, and compliance with it is not required. However, applicants are required to identify differences between design features, analytical techniques, and procedural measures proposed for a facility and corresponding SRP acceptance criteria, and evaluate how the proposed alternatives to the acceptance criteria provide an acceptable method of complying with the NRC's regulations.

The agency posts its issued staff guidance in the agency external Web page (*http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0800*).

The NRC staff is issuing this notice to solicit public comments on proposed BTP 7–19, which is being issued for the first time. After the NRC staff considers any public comments, it will make a determination regarding proposed BTP 7–19.

Dated at Rockville, Maryland, this 19th day of March 2010.

For the Nuclear Regulatory Commission,

George M. Tartal,

Acting Branch Chief, Rulemaking and Guidance Development Branch, Division of New Reactor Licensing, Office of New Reactors.

[FR Doc. 2010–6762 Filed 3–25–10; 8:45 am]

BILLING CODE 7590–01–P

SMALL BUSINESS ADMINISTRATION

[Disaster Declaration #12082 and #12083]

Arizona Disaster #AZ–00011

AGENCY: U.S. Small Business Administration.

ACTION: Notice.

SUMMARY: This is a Notice of the Presidential declaration of a major disaster for Public Assistance Only for the State of Arizona (FEMA–1888–DR), dated 03/18/2010.

Incident: Severe Winter Storms and Flooding.

Incident Period: 01/18/2010 through 01/22/2010.

DATES: *Effective Date:* 03/18/2010.

Physical Loan Application Deadline Date: 05/17/2010.

Economic Injury (EIDL) Loan Application Deadline Date: 12/20/2010.

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 President's major disaster declaration on 03/18/2010, Private Non-Profit organizations that provide essential services of governmental nature may file disaster loan applications 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:

Apache, Coconino, Gila, Greenlee, La Paz, Mohave, Navajo, Yavapai, and the Gila River Indian Community, Hopi Tribe, Navajo Nation, San Carlos Apache, Tohono O'odham Nation, and White Mountain Apache Tribe.

The Interest Rates are:

	Percent
For Physical Damage:	
Non-Profit Organizations with Credit Available Elsewhere: ..	3.625
Non-Profit Organizations without Credit Available Elsewhere:	3.000
For Economic Injury:	
Non-Profit Organizations without Credit Available Elsewhere:	3.000

The number assigned to this disaster for physical damage is 12082B and for economic injury is 12083B.

(Catalog of Federal Domestic Assistance Numbers 59002 and 59008)

Lisa Lopez-Suarez,

Acting Associate Administrator for Disaster Assistance.

[FR Doc. 2010–6815 Filed 3–25–10; 8:45 am]

BILLING CODE 8025–01–P

SMALL BUSINESS ADMINISTRATION

[License No. 01/01–0410]

Gemini Investors IV, L.P., Notice Seeking Exemption Under Section 312 of the Small Business Investment Act, Conflicts of Interest

Notice is hereby given that Gemini Investors IV, L.P., 20 William Street, Wellesley, MA 02481, a Federal Licensee under the Small Business Investment Act of 1958, as amended ("the Act"), in connection with the financing of a small concern, has sought an exemption under section 312 of the Act and section 107.730, Financings which Constitute Conflicts of Interest of the Small Business Administration ("SBA") Rules and Regulations (13 CFR 107.730). Gemini Investors IV, L.P. proposes to provide equity and debt financing to finance the acquisition of Wingstop Holdings, Inc., 1101 East Arapaho Road, Suite 150, Richardson, TX 75081.

The financing is brought within the purview of § 107.730 of the Regulations because Gemini Investors III, L.P., an Associate of Gemini Investors IV, L.P., owns more than ten percent of Wingstop Holdings, Inc. Also, the proposed investment by Gemini Investors IV, L.P. will be part of a larger pool of funds to cash out existing shareholders, one of which is its Associate Gemini Investors III, L.P. Lastly, Associates of Gemini Investors IV, LP. currently serve on the board of directors of Wingstop Holdings, Inc.

Therefore, this transaction is considered a financing of an Associate and a self-deal pursuant to 13 CFR 107.730 and requires an exemption. Notice is hereby given that any interested person may submit written comments on the transaction within fifteen days of the date of this publication to Associate Administrator for Investment, U.S. Small Business Administration, 409 Third Street, SW., Washington, DC 20416.

Dated: March 1, 2010.

Sean J. Greene,

Associate Administrator for Investment.

[FR Doc. 2010–6395 Filed 3–25–10; 8:45 am]

BILLING CODE 8025–01–M

SMALL BUSINESS ADMINISTRATION

Surrender of License of Small Business Investment Company

Pursuant to the authority granted to the United States Small Business Administration under the Small Business Investment Act of 1958, under section 309 of the Act and section 107.1900 of the Small Business Administration Rules and Regulations (13 CFR 107.1900) to function as a small business investment company under the Small Business Investment Company License No. 09/09–5375 issued to Bentley Capital and said license is hereby declared null and void.

U.S. Small Business Administration.
Dated: February 12, 2010.

Sean J. Greene,

AA/Investment.

[FR Doc. 2010–6431 Filed 3–25–10; 8:45 am]

BILLING CODE M

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–61748; File No. SR–NYSEArca–2010–15]

Self-Regulatory Organizations; NYSE Arca, Inc.; Notice of Filing of Proposed Rule Change Amending Its Schedule of Fees and Charges for Exchange Services

March 19, 2010.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the "Act") [1] and Rule 19b–4 thereunder,[2] notice is hereby given that, on March 5, 2010, NYSE Arca, Inc. ("NYSE Arca" or the "Exchange") filed with the Securities and Exchange Commission (the "Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. 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 the applicable sections of its Schedules of Fees and Charges for Exchange Services for both its equities and options platforms (the "Schedules") to reflect fees charged for co-locations services, as described more fully herein. A copy of this filing is available on the Exchange's Web site at *http://www.nyse.com,* on the

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

Commission's Web site at *http://www.sec.gov,* at the Exchange's principal office and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the self-regulatory organization 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

The Exchange proposes to amend its Schedules in order to identify fees pertaining to co-location services. A more detailed description of the proposed changes follows.

Co-Location Services

Currently, the Exchange offers its Users [3] the opportunity to rent space on premises controlled by the Exchange in order that they may locate their electronic servers in close physical proximity to the Exchange's trading and execution systems. The Exchange hereby proposes to amend its Schedules to set forth its current co-location fees.

Current Space and Services

The Exchange currently offers co-location services at a data center operated by a private third party vendor located in New Jersey. The Exchange offers space at the data center ranging from half cabinets up to two full cabinets, with different power usage capabilities ranging from 2 kilowatts up to 8 kilowatts. The services provided include equipment installation, cross connections, and miscellaneous post-installation services (including cable installation, equipment racking and "remote-hands" maintenance). The fees assessed for the services and space generally reflect the amount of space used and power required.

Users that receive co-location services from the Exchange do not receive any means of access to the Exchange's trading and execution systems that is separate or superior than Users that do not receive co-location services. All orders sent to the Exchange enter the Exchange's trading and execution systems through same order gateway regardless of whether the sender is co-located in the Exchange's data center or not. In addition, co-located Users do not receive any market data or data service product that is not available to all Users.

However, Users that receive co-location services normally would expect reduced latencies in sending orders to the Exchange and receiving market data from the Exchange. Other than the reduced latencies, the Exchange believes that there are no material differences in terms of access to the Exchange between Users that choose to co-locate and those that do not.

The Exchange offers co-location space based on availability and the Exchange believes that it has sufficient space to accommodate current demand on an equitable basis. In addition, the Exchange believes that any difference among the positions of the cabinets within the data center does not create any material difference to co-location Users in terms of access to the Exchange.

Co-Location Fees

The following chart identifies the proposed co-location fees, which, in part, reflect power usage priced at $1000 per kilowatt ("kW") per month.

Half cabinet (up to 2 kW)	$2000 per month. $2500 one time installation fee.
Full cabinet (up to 2.5 kW)	$2500 per month. $5000 one time installation fee.
Full cabinet (up to 4 kW)	$4000 per month. $5000 one time installation fee.
Full cabinet (up to 8 kW)	$8000 per month. $5000 one time installation fee.
Miscellaneous services post installation (including cable installation services, equipment racking services, and ongoing remote-hands maintenance).	$200 per hour.
Fiber cross connections (local and interfloor)	$600 per month. $950 one time installation fee.
Less than half cabinet [4]	$150 per Rack Unit.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the provisions of Section 6 of the Securities Exchange Act of 1934 (the "Act"),[5] in general, and Sections 6(b)(4) and 6(b)(5), of the Act,[6] in particular, in that it is designed to (i) provide for the equitable allocation of reasonable dues, fees, and other charges among its members and other persons using its facilities, and (ii) prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, and to remove impediments to and perfect the mechanisms of a free and open market and a national market system. The Exchange believes that the proposed changes to its Schedules are equitable in that they apply fees for comparable co-location services uniformly to our Users. Moreover, the Exchange believes that, as described herein, access to its market is offered on fair and non-discriminatory terms.

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.

[3] *See* NYSE Arca Equities Rule 1.1(yy). The term "User" shall mean any ETP Holder or Sponsored Participant who is authorized to obtain access to the NYSE Arca Marketplace pursuant to Rule 7.29. *See also,* NYSE Arca Rule 6.1A(a)(19). The term "User" shall mean any OTP Holder, OTP Firm or Sponsored Participant that is authorized to obtain access to the NYSE Arca Options Marketplace pursuant to Rule 6.2A.

[4] The Exchange supports existing arrangements to provide Users with less than a half cabinet, but it does not offer that option to new co-location Users.

[5] 15 U.S.C. 78f(b).

[6] 15 U.S.C. 78f(b)(4) and 15 U.S.C. 78f(b)(5).

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 with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 35 days of the date of publication of this notice in the **Federal Register** or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) By order approve the proposed rule change, or

(B) Institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an e-mail to *rule-comments@sec.gov*. Please include File Number SR–NYSEArca–2010–15 on the subject line.

Paper Comments

- Send paper comments in triplicate to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549–1090.

All submissions should refer to File Number SR–NYSEArca–2010–15. 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 Web site viewing and printing in the Commission's Public Reference Room, 100 F Street, NE., Washington, DC 20549, on official business days between the hours of 10 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–NYSEArca–2010–15 and should be submitted on or before April 16, 2010.

For the Commission, by the Division of Market Regulation, pursuant to delegated authority.[7]

Florence E. Harmon,

Deputy Secretary.

[FR Doc. 2010–6676 Filed 3–25–10; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–61742; File No. SR–ISE–2010–19]

Self-Regulatory Organizations; International Securities Exchange, LLC; Notice of Filing of Proposed Rule Change To List and Trade Options on the ETFS Palladium Trust and the ETFS Platinum Trust

March 19, 2010.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the "Act"),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on March 5, 2010, the International Securities Exchange, LLC (the "Exchange" or the "ISE") filed with the Securities and Exchange Commission ("Commission") the proposed rule change as described in Items I, II, and III below, which items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend its rules to enable the listing and trading on the Exchange of options on the ETFS Palladium Trust and the ETFS Platinum Trust. The text of the proposed rule change is available on the Exchange's Web site *http://www.ise.com,* at the principal office 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 self-regulatory organization 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

Recently, the U.S. Securities and Exchange Commission ("SEC" or "Commission") authorized ISE to list and trade options on the SPDR Gold Trust,[3] the iShares COMEX Gold Trust and the iShares Silver Trust,[4] the ETFS Gold Trust and the ETFS Silver Trust.[5] Now, the Exchange proposes to list and trade options on the ETFS Palladium Trust and the ETFS Platinum Trust.

Under current Rule 502(h), only Exchange-Traded Fund Shares, or ETFs, that are traded on a national securities exchange and are defined as an "NMS" stock under Rule 600 of Regulation NMS, and that (i) represent interests in registered investment companies (or series thereof) organized as open-end management investment companies, unit investment trusts or similar entities that hold portfolios of securities and/or financial instruments, including, but not limited to, stock index futures contracts, options on futures, options on securities and indices, equity caps, collars and floors, swap agreements, forward contracts, repurchase agreements and reverse repurchase agreements (the "Financial Instruments"), and money

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[7] 17 CFR 200.30–3(a)(12).

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 57894 (May 30, 2008), 73 FR 32061 (June 5, 2008) (SR–ISE–2008–12).

[4] *See* Securities Exchange Act Release No. 59055 (December 4, 2008), 73 FR 75148 (December 10, 2008) (SR–ISE–2008–58).

[5] *See* Securities Exchange Act Release No. 61483 (February 3, 2010), 75 FR 6753 (February 10, 2010) (SR–ISE–2009–106).

market instruments, including, but not limited to, U.S. government securities and repurchase agreements (the "Money Market Instruments") comprising or otherwise based on or representing investments in broad-based indexes or portfolios of securities and/or Financial Instruments and Money Market Instruments (or that hold securities in one or more other registered investment companies that themselves hold such portfolios of securities and/or Financial Instruments and Money Market Instruments) or (ii) represent interests in a trust that holds a specified non-U.S. currency or currencies deposited with the trust when aggregated in some specified minimum number may be surrendered to the trust by the beneficial owner to receive the specified non-U.S. currency or currencies and pays the beneficial owner interest and other distributions on the deposited non-U.S. currency or currencies, if any, declared and paid by the trust ("Funds") or (iii) represent commodity pool interests principally engaged, directly or indirectly, in holding and/or managing portfolios or baskets of securities, commodity futures contracts, options on commodity futures contracts, swaps, forward contracts and/or options on physical commodities and/or non-U.S. currency ("Commodity Pool ETFs") or (iv) represent interests in the SPDR® Gold Trust, the iShares COMEX Gold Trust, the iShares Silver Trust, the ETFS Gold Trust or the ETFS Silver Trust or (v) represents an interest in a registered investment company ("Investment Company") organized as an open-end management company or similar entity, that invests in a portfolio of securities selected by the Investment Company's investment adviser consistent with the Investment Company's investment objectives and policies, which is issued in a specified aggregate minimum number in return for a deposit of a specified portfolio of securities and/or a cash amount with a value equal to the next determined net asset value ("NAV"), and when aggregated in the same specified minimum number, may be redeemed at a holder's request, which holder will be paid a specified portfolio of securities and/or cash with a value equal to the next determined NAV ("Managed Fund Share") are eligible as underlying securities for options traded on the Exchange.[6] This rule change proposes to expand the types of ETFs that may be approved for options trading on the Exchange to include the ETFS Palladium Trust and the ETFS Platinum Trust.

Apart from allowing the ETFS Palladium Trust and the ETFS Platinum Trust to be an underlying for options traded on the Exchange as described above, the listing standards for ETFs will remain unchanged from those that apply under current Exchange rules. ETFs on which options may be listed and traded must still be listed and traded on a national securities exchange and must satisfy the other listing standards set forth in ISE Rule 502(h).

Specifically, in addition to satisfying the aforementioned listing requirements, ETFs must meet either (1) the criteria and guidelines under ISE Rules 502(a) and (b) or (2) they must be available for creation or redemption each business day from or through the issuing trust, investment company, commodity pool or other entity in cash or in kind at a price related to net asset value, and the issuer must be obligated to issue Exchange-Traded Fund Shares in a specified aggregate number even if some or all of the investment assets and/or cash required to be deposited have not been received by the issuer, subject to the condition that the person obligated to deposit the investment assets has undertaken to deliver them as soon as possible and such undertaking is secured by the delivery and maintenance of collateral consisting of cash or cash equivalents satisfactory to the issuer, as provided in the respective prospectus.

The Exchange states that the current continued listing standards for options on ETFs will apply to options on the ETFS Palladium Trust and the ETFS Platinum Trust. Specifically, under ISE Rule 503(h), options on Exchange-Traded Fund Shares may be subject to the suspension of opening transactions as follows: (1) Following the initial twelve-month period beginning upon the commencement of trading of the Exchange-Traded Fund Shares, there are fewer than 50 record and/or beneficial holders of the Exchange-Traded Fund Shares for 30 or more consecutive trading days; (2) the value of the underlying palladium or underlying platinum is no longer calculated or available; or (3) such other event occurs or condition exists that in the opinion of the Exchange makes further dealing on the Exchange inadvisable.

Additionally, the ETFS Palladium Trust and the ETFS Platinum Trust shall not be deemed to meet the requirements for continued approval, and the Exchange shall not open for trading any additional series of option contracts of the class covering the ETFS Palladium Trust and the ETFS Platinum Trust, respectively, if the ETFS Palladium Trust and the ETFS Platinum Trust ceases to be an "NMS stock" as provided for in ISE Rule 503(b)(5) or the ETFS Palladium Trust and the ETFS Platinum Trust is halted from trading on its primary market.

The addition of the ETFS Palladium Trust and the ETFS Platinum Trust to ISE Rule 502(h) will not have any effect on the rules pertaining to position and exercise limits[7] or margin.[8]

The Exchange represents that its surveillance procedures applicable to trading in options on the ETFS Palladium Trust and the ETFS Platinum Trust will be similar to those applicable to all other options on other ETFs currently traded on the Exchange. Also, the Exchange may obtain information from the New York Mercantile Exchange, Inc. ("NYMEX") (a member of the Intermarket Surveillance Group) related to any financial instrument that is based, in whole or in part, upon an interest in or performance of palladium or platinum.

2. Statutory Basis

The proposed rule change is consistent with Section 6(b)[9] of the Securities Exchange Act of 1934 (the "Act"), in general, and furthers the objectives of Section 6(b)(5)[10] in particular in that it is designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in facilitating transactions in securities, and to remove impediments to and perfect the mechanisms of a free and open market and a national market system in a manner consistent with the protection of investors and the public interest. In particular, the Exchange believes that amending its rules to accommodate the listing and trading of options on the ETFS Palladium Trust and the ETFS Platinum Trust will benefit investors by providing them with valuable risk management tools.

B. Self-Regulatory Organization's Statement on Burden on Competition

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

[6] *See* ISE Rule 502(h).

[7] *See* ISE Rules 412 and 414.

[8] *See* ISE Rule 1202.

[9] 15 U.S.C. 78f(b).

[10] 15 U.S.C. 78f(b)(5).

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

Within 35 days of the date of publication of this notice in the **Federal Register** or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

(a) By order approve such proposed rule change, or

(b) Institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form *(http://www.sec.gov/rules/sro.shtml);* or
- Send an e-mail to *rule-comments@sec.gov*. Please include File Number SR–ISE–2010–19 on the subject line.

Paper Comments

- Send paper comments in triplicate to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549–1090.

All submissions should refer to File Number SR–ISE–2010–19. 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 Web site viewing and printing in the Commission's Public Reference Room, 100 F Street, NE., Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; 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–2010–19 and should be submitted on or before April 16, 2010.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[11]

Florence E. Harmon,

Deputy Secretary.

[FR Doc. 2010–6677 Filed 3–25–10; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–61744; File No. SR–NYSEAMEX–2010–26]

Self-Regulatory Organizations; Notice of Filing of Proposed Rule Change by NYSE Amex LLC Deleting Rule 446—NYSE Amex Equities and Adopting New Rule 4370—NYSE Amex Equities To Correspond With Rule Changes Filed by the Financial Industry Regulatory Authority, Inc.

March 19, 2010.

Pursuant to Section 19(b)(1)[1] of the Securities Exchange Act of 1934 (the "Act")[2] and Rule 19b–4 thereunder,[3] notice is hereby given that, on March 11, 2010, NYSE Amex LLC ("NYSE Amex" or the "Exchange") filed with the Securities and Exchange Commission (the "Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. 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 delete Rule 446—NYSE Amex Equities and adopt new Rule 4370—NYSE Amex Equities to correspond with rule changes filed by the Financial Industry Regulatory Authority, Inc. ("FINRA") and approved by the Commission.[4] The text of the proposed rule change is available at the Exchange, the Commission's Public Reference Room, and *http://www.nyse.com.*

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 self-regulatory organization 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

The purpose of the proposed rule changes is to delete Rule 446—NYSE Amex Equities (Business Continuity and Contingency Plans) and adopt new Rule 4370—NYSE Amex Equities (Business Continuity Plans and Emergency Contact Information) to correspond with rule changes filed by FINRA and approved by the Commission.

Background

On July 30, 2007, FINRA's predecessor, the National Association of Securities Dealers, Inc. ("NASD"), and NYSE Regulation, Inc. ("NYSER") consolidated their member firm regulation operations into a combined organization, FINRA. Pursuant to Rule 17d–2 under the Act, the New York Stock Exchange LLC ("NYSE"), NYSER and FINRA entered into an agreement (the "Agreement") to reduce regulatory duplication for their members by allocating to FINRA certain regulatory responsibilities for certain NYSE rules and rule interpretations ("FINRA Incorporated NYSE Rules"). The Exchange became a party to the Agreement effective December 15, 2008.[5]

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[11] 17 CFR 200.30–3(a)(12).

[1] 15 U.S.C.78s(b)(1).

[2] 15 U.S.C. 78a.

[3] 17 CFR 240.19b–4.

[4] *See* Securities Exchange Act Release No. 60534 (August 19, 2009), 74 FR 44410 (August 28, 2009) (order approving SR–FINRA–2009–036).

[5] *See* Securities Exchange Act Release Nos. 56148 (July 26, 2007), 72 FR 42146 (August 1, 2007) (order approving the Agreement); 56147 (July 26, 2007), 72 FR 42166 (August 1, 2007) (SR–NASD–2007–054) (order approving the incorporation of certain NYSE

As part of its effort to reduce regulatory duplication and relieve firms that are members of FINRA, NYSE and NYSE Amex of conflicting or unnecessary regulatory burdens, FINRA is now engaged in the process of reviewing and amending the NASD and FINRA Incorporated NYSE Rules in order to create a consolidated FINRA rulebook.[6]

Proposed Conforming Amendments to NYSE Amex Equities Rules

In 2008, FINRA deleted FINRA Incorporated NYSE Rule 446 (Business Continuity and Contingency Plans) as substantively duplicative of NASD Rules 3510 (Business Continuity Plans) and 3520 (Emergency Contact Information).[7] Correspondingly, the Exchange amended Rule 446—NYSE Amex Equities (Business Continuity and Contingency Plans) to remove the existing text and incorporate NASD Rules 3510 and 3520 by reference.[8] Subsequently, FINRA adopted, subject to certain amendments, NASD Rules 3510 and 3520 as consolidated FINRA Rule 4370 (Business Continuity Plans and Emergency Contact Information).[9]

In order to harmonize the NYSE Amex Equities Rules with the approved consolidated FINRA Rules, the Exchange correspondingly proposes to delete Rule 446—NYSE Amex Equities and replace it with proposed Rule 4370—NYSE Amex Equities, which is substantially similar to the new FINRA Rule.[10] As proposed, Rule 4370—NYSE Amex Equities adopts the same language as FINRA Rule 4370, except for substituting for or adding to, as needed, the term "member organization" for the term "member", and making corresponding technical changes that reflect the difference between NYSE Amex's and FINRA's membership structures. In addition, in paragraph (f)(2) to proposed Rule 4370—NYSE Amex Equities, the Exchange added a cross-reference to Rule 416A—NYSE Amex Equities to ensure that those Exchange members and member organizations that are not FINRA members are required to update the contact information for emergency personnel in accordance with NYSE Amex Equities Rules.

Finally, in order to ensure that both proposed Rule 4370—NYSE Amex Equities and FINRA Rule 4370 are fully harmonized, the Exchange also proposes to add Supplementary Material .01 to Rule 4370—NYSE Amex Equities to provide that, for the purposes of the rule, the term "associated person" shall have the same meaning as the terms "person associated with a member" or "associated person of a member" as defined in Article I (rr) of the FINRA By-Laws.

In addition, the Exchange respectfully requests that the effective date for the proposed rule changes be retroactive to December 14, 2009, the same effective date for FINRA's rule changes.[11] Approval retroactively effective to December 14, 2009, would ensure that the proposed rule changes are operative and effective at the same time as FINRA's rule changes, that there are no regulatory gaps between the FINRA and NYSE Amex Equities Rules and that, as applicable, the NYSE Amex Equities Rules maintain their status as Common Rules under the 17d–2 Agreement.[12]

2. Statutory Basis

The Exchange believes that the proposed rule changes are consistent with Section 6(b) of the Act,[13] in general, and further the objectives of Section 6(b)(5) of the Act,[14] in particular, in that they are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest.

The Exchange believes that the proposed rule changes support the objectives of the Act by providing greater harmonization between NYSE Amex Equities Rules and FINRA Rules of similar purpose, resulting in less burdensome and more efficient regulatory compliance for joint members. To the extent the Exchange has proposed changes that differ from the FINRA version of the Rules, such changes are technical in nature and do not change the substance of the proposed NYSE Amex Equities Rules.

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 solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 35 days of the date of publication of this notice in the **Federal Register** or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) By order approve the proposed rule change, or

(B) Institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an e-mail to *rule-comments@sec.gov.* Please include File Number SR–NYSEAMEX–2010–26 on the subject line.

Paper Comments

- Send paper comments in triplicate to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549–1090.

Rules as "Common Rules"); *and* 60409 (July 30, 2009), 74 FR 39353 (August 6, 2009) (order approving the amended and restated Agreement, adding NYSE Amex LLC as a party). Paragraph 2(b) of the Agreement sets forth procedures regarding proposed changes by FINRA, NYSE or NYSE Amex to the substance of any of the Common Rules.

[6] FINRA's rulebook currently has three sets of rules: (1) NASD Rules, (2) FINRA Incorporated NYSE Rules, and (3) consolidated FINRA Rules. The FINRA Incorporated NYSE Rules apply only to those members of FINRA that are also members of the NYSE, while the consolidated FINRA Rules apply to all FINRA members. For more information about the FINRA rulebook consolidation process, *see* FINRA Information Notice, March 12, 2008.

[7] *See* Securities Exchange Act Release No. 58533 (September 12, 2008), 73 FR 54652 (September 22, 2008) (order approving SR–FINRA–2008–036).

[8] *See* Securities Exchange Act Release No. 59022 (November 26, 2008), 73 FR 73683 (December 3, 2008) (order approving SR–NYSEALTR–2008–10).

[9] *See* Securities Exchange Act Release No. 60534 (August 19, 2009), 74 FR 44410 (August 28, 2009).

[10] New York Stock Exchange LLC has submitted a companion rule filing amending its rules in accordance with FINRA's rule changes. *See* SR–NYSE–2010–23.

[11] *See* FINRA Regulatory Notice 09–60 (October 15, 2009).

[12] As provided in paragraph 2(b) of the 17d–2 Agreement, FINRA and NYSE will amend the list of Common Rules to conform to the rule changes proposed herein.

[13] 15 U.S.C. 78f(b).

[14] 15 U.S.C. 78f(b)(5).

All submissions should refer to File Number SR–NYSEAMEX–2010–26. 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,[15] 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 Web site viewing and printing in the Commission's Public Reference Section, 100 F Street, NE., Washington, DC 20549–1090. Copies of the filing will also be available for inspection and copying at the NYSE's principal office and on its Internet Web site at *http://www.nyse.com.* 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–NYSEAMEX–2010–26 and should be submitted on or before April 16, 2010.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[16]

Florence E. Harmon,

Deputy Secretary.

[FR Doc. 2010–6678 Filed 3–25–10; 8:45 am]

BILLING CODE 8011–01–P

[15] The text of the proposed rule change is available on the Commission's Web site at *http://www.sec.gov/.*

[16] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–61743; File No. SR–NYSE–2010–23]

Self-Regulatory Organizations; Notice of Filing of Proposed Rule Change by New York Stock Exchange LLC Deleting NYSE Rule 446 and Adopting New Rule 4370 To Correspond With Rule Changes Filed by the Financial Industry Regulatory Authority, Inc.

March 19, 2010.

Pursuant to Section 19(b)(1)[1] of the Securities Exchange Act of 1934 (the "Act")[2] and Rule 19b–4 thereunder,[3] notice is hereby given that, on March 11, 2010, New York Stock Exchange LLC ("NYSE" or the "Exchange") filed with the Securities and Exchange Commission (the "Commission") the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the self-regulatory organization. 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 delete NYSE Rule 446 and adopt new Rule 4370 to correspond with rule changes filed by the Financial Industry Regulatory Authority, Inc. ("FINRA") and approved by the Commission.[4] The text of the proposed rule change is available at the Exchange, the Commission's Public Reference Room, and *http://www.nyse.com.*

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 self-regulatory organization 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.

[1] 15 U.S.C. 78s(b)(1).

[2] 15 U.S.C. 78a.

[3] 17 CFR 240.19b–4.

[4] *See* Securities Exchange Act Release No. 60534 (August 19, 2009), 74 FR 44410 (August 28, 2009) (order approving SR–FINRA–2009–036).

A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change

1. Purpose

The purpose of the proposed rule changes is to delete NYSE Rule 446 (Business Continuity and Contingency Plans) and adopt new Rule 4370 (Business Continuity Plans and Emergency Contact Information) to correspond with rule changes filed by FINRA and approved by the Commission.

Background

On July 30, 2007, FINRA's predecessor, the National Association of Securities Dealers, Inc. ("NASD"), and NYSE Regulation, Inc. ("NYSER") consolidated their member firm regulation operations into a combined organization, FINRA. Pursuant to Rule 17d–2 under the Act, NYSE, NYSER and FINRA entered into an agreement (the "Agreement") to reduce regulatory duplication for their members by allocating to FINRA certain regulatory responsibilities for certain NYSE rules and rule interpretations ("FINRA Incorporated NYSE Rules"). NYSE Amex LLC ("NYSE Amex") became a party to the Agreement effective December 15, 2008.[5]

As part of its effort to reduce regulatory duplication and relieve firms that are members of FINRA, NYSE and NYSE Amex of conflicting or unnecessary regulatory burdens, FINRA is now engaged in the process of reviewing and amending the NASD and FINRA Incorporated NYSE Rules in order to create a consolidated FINRA rulebook.[6]

Proposed Conforming Amendments to NYSE Rules

In 2008, FINRA deleted FINRA Incorporated NYSE Rule 446 (Business

[5] *See* Securities Exchange Act Release Nos. 56148 (July 26, 2007), 72 FR 42146 (August 1, 2007) (order approving the Agreement); 56147 (July 26, 2007), 72 FR 42166 (August 1, 2007) (SR–NASD–2007–054) (order approving the incorporation of certain NYSE Rules as "Common Rules"); *and* 60409 (July 30, 2009), 74 FR 39353 (August 6, 2009) (order approving the amended and restated Agreement, adding NYSE Amex LLC as a party). Paragraph 2(b) of the Agreement sets forth procedures regarding proposed changes by FINRA, NYSE or NYSE Amex to the substance of any of the Common Rules.

[6] FINRA's rulebook currently has three sets of rules: (1) NASD Rules, (2) FINRA Incorporated NYSE Rules, and (3) consolidated FINRA Rules. The FINRA Incorporated NYSE Rules apply only to those members of FINRA that are also members of the NYSE ("Dual Members"), while the consolidated FINRA Rules apply to all FINRA members. For more information about the FINRA rulebook consolidation process, *see* FINRA Information Notice, March 12, 2008.

Continuity and Contingency Plans) as substantively duplicative of NASD Rules 3510 (Business Continuity Plans) and 3520 (Emergency Contact Information).[7] Correspondingly, the Exchange amended NYSE Rule 446 (Business Continuity and Contingency Plans) to remove the existing text and incorporate NASD Rules 3510 and 3520 by reference.[8] Subsequently, FINRA adopted, subject to certain amendments, NASD Rules 3510 and 3520 as consolidated FINRA Rule 4370 (Business Continuity Plans and Emergency Contact Information).[9]

In order to harmonize the NYSE Rules with the approved consolidated FINRA Rules, the Exchange correspondingly proposes to delete NYSE Rule 446 and replace it with proposed NYSE Rule 4370, which is substantially similar to the new FINRA Rule.[10] As proposed, NYSE Rule 4370 adopts the same language as FINRA Rule 4370, except for substituting for or adding to, as needed, the term "member organization" for the term "member", and making corresponding technical changes that reflect the difference between NYSE's and FINRA's membership structures. In addition, in paragraph (f)(2) to proposed Rule 4370, the Exchange added a cross-reference to NYSE Rule 416A to ensure that those Exchange members and member organizations that are not FINRA members are required to update the contact information for emergency personnel in accordance with NYSE Rules.

Finally, in order to ensure that both proposed NYSE Rule 4370 and FINRA Rule 4370 are fully harmonized, the Exchange also proposes to add Supplementary Material .01 to NYSE Rule 4370 to provide that, for the purposes of the rule, the term "associated person" shall have the same meaning as the terms "person associated with a member" or "associated person of a member" as defined in Article I (rr) of the FINRA By-Laws.

In addition, the Exchange respectfully requests that the effective date for the proposed rule changes be retroactive to December 14, 2009, the same effective date for FINRA's rule changes.[11] Approval retroactively effective to December 14, 2009, would ensure that the proposed rule changes are operative and effective at the same time as FINRA's rule changes, that there are no regulatory gaps between the FINRA and NYSE Rules and that, as applicable, the NYSE Rules maintain their status as Common Rules under the 17d–2 Agreement.[12]

2. Statutory Basis

The Exchange believes that the proposed rule changes are consistent with Section 6(b) of the Act,[13] in general, and further the objectives of Section 6(b)(5) of the Act,[14] in particular, in that they are designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest.

The Exchange believes that the proposed rule changes support the objectives of the Act by providing greater harmonization between NYSE Rules and FINRA Rules (including Common Rules) of similar purpose, resulting in less burdensome and more efficient regulatory compliance for Dual Members. To the extent the Exchange has proposed changes that differ from the FINRA version of the Rules, such changes are technical in nature and do not change the substance of the proposed NYSE Rules.

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 solicited or received with respect to the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Within 35 days of the date of publication of this notice in the **Federal Register** or within such longer period (i) as the Commission may designate up to 90 days of such date if it finds such longer period to be appropriate and publishes its reasons for so finding or (ii) as to which the self-regulatory organization consents, the Commission will:

(A) By order approve the proposed rule change, or

(B) Institute proceedings to determine whether the proposed rule change should be disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's Internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an e-mail to *rule-comments@sec.gov.* Please include File Number SR–NYSE–2010–23 on the subject line.

Paper Comments

- Send paper comments in triplicate to Elizabeth M. Murphy, Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549–1090.

All submissions should refer to File Number SR–NYSE–2010–23. 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,[15] 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 Web site viewing and printing in the Commission's Public Reference Section, 100 F Street, NE., Washington, DC 20549–1090 between the hours of 10 a.m. and 3 p.m. Copies of such filing will also be available for inspection and copying at the NYSE's

[7] *See* Securities Exchange Act Release No. 58533 (September 12, 2008), 73 FR 54652 (September 22, 2008) (order approving SR–FINRA–2008–036).

[8] *See* Securities Exchange Act Release No. 58549 (September 15, 2008), 73 FR 54444 (September 19, 2008) (order approving SR–NYSE–2008–080).

[9] *See* Securities Exchange Act Release No. 60534 (August 19, 2009), 74 FR 44410 (August 28, 2009).

[10] NYSE Amex has submitted a companion rule filing amending its rules in accordance with FINRA's rule changes. *See* SR–NYSE–Amex–2010–26.

[11] *See* FINRA Regulatory Notice 09–60 (October 15, 2009).

[12] As provided in paragraph 2(b) of the 17d–2 Agreement, FINRA and NYSE will amend the list of Common Rules to conform to the rule changes proposed herein.

[13] 15 U.S.C. 78f(b).

[14] 15 U.S.C. 78f(b)(5).

[15] The text of the proposed rule change is available on the Commission's Web site at *http://www.sec.gov/.*

principal office and on its Internet Web site at *http://www.nyse.com.* 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–NYSE–2010–23 and should be submitted on or before April 16, 2010.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[16]

Florence E. Harmon,

Deputy Secretary.

[FR Doc. 2010–6679 Filed 3–25–10; 8:45 am]

BILLING CODE 8011–01–P

DEPARTMENT OF TRANSPORTATION

Office of the Secretary

Aviation Proceedings, Agreements Filed the Week Ending March 13, 2010

The following Agreements were filed with the Department of Transportation under sections 412 and 414 of the Federal Aviation Act, as amended (49 U.S.C. 1382 and 1384) and procedures governing proceedings to enforce these provisions. Answers may be filed within 21 days after the filing of the application.

Docket Number: DOT–OST–2010–0060.

Date Filed: March 8, 2010.

Parties: Members of the International Air Transport Association.

Subject:

TC3 Within South West Pacific, between South Asian Subcontinent, South East Asia and South West Pacific (Memo 1364).

Intended effective date: for travel on/after: 1 June 2010.

Docket Number: DOT–OST–2010–0061.

Date Filed: March 8, 2010.

Parties: Members of the International Air Transport Association.

Subject:

Mail Vote 628 Resolutions 010s, TC2 within Africa, Special Passenger Amending Resolution from Angola to Namibia (Memo 0199).

Intended effective date: 22 March 2010.

Renee V. Wright,

Program Manager, Docket Operations, Federal Register Liaison.

[FR Doc. 2010–6717 Filed 3–25–10; 8:45 am]

BILLING CODE 4910–9X–P

[16] 17 CFR 200.30–3(a)(12).

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[Docket ID. FMCSA–2010–0051]

Qualification of Drivers; Exemption Applications; Diabetes

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Notice of applications for exemptions from the diabetes standard; request for comments.

SUMMARY: FMCSA announces receipt of applications from 27 individuals for exemptions from the prohibition against persons with insulin-treated diabetes mellitus (ITDM) operating commercial motor vehicles (CMVs) in interstate commerce. If granted, the exemptions would enable these individuals with ITDM to operate commercial motor vehicles in interstate commerce.

DATES: Comments must be received on or before April 26, 2010.

ADDRESSES: You may submit comments bearing the Federal Docket Management System (FDMS) Docket ID FMCSA–2010–0051 using any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov.* Follow the on-line 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:* West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal Holidays.
- *Fax:* 1–202–493–2251.

Each submission must include the Agency name and the docket ID for this Notice. Note that DOT posts all comments received without change to *http://www.regulations.gov,* including any personal information included in a comment. Please see the Privacy Act heading below.

Docket: For access to the docket to read background documents or comments, go to *http://www.regulations.gov* at any time or Room W12–140 on the ground level of the West Building, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The FDMS is available 24 hours each day, 365 days each year. If you want acknowledgment that we received your comments, please include a self-addressed, stamped envelope or postcard or print the acknowledgement page that appears after submitting comments on-line.

Privacy Act: Anyone may search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or of the person signing the comment, if submitted on behalf of an association, business, labor union, *etc.*). You may review the DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19476). This information is also available at *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Dr. Mary D. Gunnels, Director, Medical Programs, (202) 366–4001, *fmcsamedical@dot.gov,* FMCSA, Department of Transportation, 1200 New Jersey Avenue, SE., Room W64–224, Washington, DC 20590–0001. Office hours are from 8:30 a.m. to 5 p.m., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Background

Under 49 U.S.C. 31136(e) and 31315, FMCSA may grant an exemption for a 2-year period if it finds "such exemption would likely achieve a level of safety that is equivalent to, or greater than, the level that would be achieved absent such exemption." The statute also allows the Agency to renew exemptions at the end of the 2-year period. The 27 individuals listed in this notice have recently requested an exemption from the diabetes prohibition in 49 CFR 391.41(b) (3), which applies to drivers of CMV in interstate commerce. Accordingly, the Agency will evaluate the qualifications of each applicant to determine whether granting the exemption will achieve the required level of safety mandated by the statutes.

Qualifications of Applicants

Jason H. Altenberger

Mr. Altenberger, age 34, has had ITDM since 1982. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Altenberger meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2009

and certified that he has stable nonproliferative diabetic retinopathy. He holds a Class D operator's license from Wisconsin.

Shawn P. Amaro

Mr. Amaro, 24, has had ITDM since 1997. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Amaro meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class C operator's license from California.

Berry W. Anderson

Mr. Anderson, 57, has had ITDM since 2008. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Anderson meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class A Commercial Driver's License (CDL) from Tennessee.

James R. Atkinson

Mr. Atkinson, 64, has had ITDM since 2009. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Atkinson meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Idaho.

Alladin J. Butler

Mr. Butler, 44, has had ITDM since 2008. His endocrinologist examined him in 2010 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Butler meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2010 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Montana.

Carlos V. Candelaria

Mr. Candelaria, 44, has had ITDM since 2006. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Candelaria meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class B CDL from New Mexico.

James R. Crawford

Mr. Crawford, 58, has had ITDM since 2008. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Crawford meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2010 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Washington.

Alan Curtis

Mr. Curtis, 39, has had ITDM since 2009. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Curtis meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2010 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Utah.

Benny DeVizio

Mr. DeVizio, 53, has had ITDM since 2004. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. DeVizio meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2009 and certified that he has does not have diabetic retinopathy. He holds a Class B CDL from New Jersey.

Jimmy W. Dotson

Mr. Dotson, 75, has had ITDM since 1989. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Dotson meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2009 and certified that he has does not have diabetic retinopathy. He holds a Class B CDL from New Mexico.

Arden A. Endrek

Mr. Endrek, 67, has had ITDM since 2007. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Endrek meets the

requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2009 and certified that he has does not have diabetic retinopathy. He holds a Class A CDL from Ohio.

David B. Flaa

Mr. Flaa, 56, has had ITDM since 2009. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Flaa meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class B CDL from Minnesota.

James W. Gordon

Mr. Gordon, 52, has had ITDM since 2009. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Gordon meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Kentucky.

Eldon L. Janssen

Mr. Janssen, 59, has had ITDM since 1977. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Janssen meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2010 and certified that he has stable nonproliferative diabetic retinopathy. He holds a Class D operator's license from Wisconsin.

Frank J. Katzbeck

Mr. Katzbeck, 69, has had ITDM since 2002. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Katzbeck meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2009 and certified that he has stable nonproliferative diabetic retinopathy. He holds a Class C operator's license from Illinois.

James K. Libke

Mr. Libke, 48, has had ITDM since 2003. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Libke meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class A chauffeur's license from Indiana.

Joseph R. Marcelewski

Mr. Marcelewski, 57, has had ITDM since 2008. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Marcelewski meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2009 and certified that he has stable nonproliferative diabetic retinopathy. He holds a Class A CDL from Ohio.

Daniel R. McBride

Mr. McBride, 47, has had ITDM since 2009. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. McBride meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Illinois.

John A. Mohr

Mr. Mohr, 57, has had ITDM since 2007. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Mohr meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Ohio.

William O. Ruiz, III

Mr. Ruiz, 32, has had ITDM since 2009. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Ruiz meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Arizona.

Harold D. Russman

Mr. Russman, 68, has had ITDM since 2007. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Russman meets the

requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from South Dakota.

Hector M. Sanchez

Mr. Sanchez, 48, has had ITDM since 2003. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Sanchez meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from New Mexico.

Robert L. Staats

Mr. Staats, 44, has had ITDM since 2007. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Staats meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class A CDL from Oregon.

Christopher Starghill

Mr. Starghill, 41, has had ITDM since 2007. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Starghill meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class B CDL from Washington, DC.

Kevin L. Upmann

Mr. Upmann, 44, has had ITDM since 2009. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Upmann meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His ophthalmologist examined him in 2010 and certified that he has stable nonproliferative diabetic retinopathy. He holds a Class A CDL from Illinois.

Bob E. Vacek

Mr. Vacek, 61, has had ITDM since 2009. His endocrinologist examined him in 2010 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Vacek meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class 1 operator's license from South Dakota, which allows him to drive passenger cars and trucks with a gross weight of not more than 26,000 pounds.

Mathew G. Williams

Mr. Williams, 27, has had ITDM since 1994. His endocrinologist examined him in 2009 and certified that he has had no hypoglycemic reactions resulting in loss of consciousness, requiring the assistance of another person, or resulting in impaired cognitive function that occurred without warning in the past 5 years; understands diabetes management and monitoring; and has stable control of his diabetes using insulin, and is able to drive a CMV safely. Mr. Williams meets the requirements of the vision standard at 49 CFR 391.41(b)(10). His optometrist examined him in 2009 and certified that he does not have diabetic retinopathy. He holds a Class B CDL from Kentucky.

Request for Comments

In accordance with 49 U.S.C. 31136(e) and 31315, FMCSA requests public comment from all interested persons on the exemption petitions described in this notice. We will consider all comments received before the close of business on the closing **DATES** indicated in the **DATES** section of the Notice.

FMCSA notes that Section 4129 of the Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA–LU) requires the Secretary to revise its diabetes exemption program established on September 3, 2003 (68 FR 52441).[1] The revision must provide for individual assessment of drivers with diabetes mellitus, and be consistent with the criteria described in section 4018 of the Transportation Equity Act for the 21st Century (49 U.S.C. 31305).

Section 4129 requires: (1) The elimination of the requirement for three years of experience operating CMVs while being treated with insulin; and (2) the establishment of a specified minimum period of insulin use to demonstrate stable control of diabetes before being allowed to operate a CMV.

In response to section 4129, FMCSA made immediate revisions to the diabetes exemption program established by the September 3, 2003 Notice. FMCSA discontinued use of the 3-year driving experience and fulfilled the requirements of section 4129 while continuing to ensure that operation of CMVs by drivers with ITDM will achieve the requisite level of safety required of all exemptions granted under 49 U.S.C. 31136(e).

Section 4129(d) also directed FMCSA to ensure that drivers of CMVs with ITDM are not held to a higher standard than other drivers, with the exception of limited operating, monitoring and medical requirements that are deemed medically necessary. FMCSA concluded that all of the operating, monitoring and medical requirements set out in the September 3, 2003 Notice, except as modified, were in compliance with section 4129(d). Therefore, all of the requirements set out in the September 3, 2003 Notice, except as modified by the Notice in the **Federal Register** on November 8, 2005 (70 FR 67777), remain in effect.

Issued on: March 19, 2010.

Larry W. Minor,

Associate Administrator for Policy and Program Development.

[FR Doc. 2010–6739 Filed 3–25–10; 8:45 am]

BILLING CODE P

[1] Section 4129(a) refers to the 2003 Notice as a "final rule." However, the 2003 Notice did not issue a "final rule" but did establish the procedures and standards for issuing exemptions for drivers with ITDM.

DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

[Docket ID. FMCSA–2010–0050]

Qualification of Drivers; Exemption Applications; Vision

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Notice of applications for exemptions; request for comments.

SUMMARY: FMCSA announces receipt of applications from 19 individuals for exemption from the vision requirement in the Federal Motor Carrier Safety Regulations. If granted, the exemptions would enable these individuals to qualify as drivers of commercial motor vehicles (CMVs) in interstate commerce without meeting the Federal vision standard.

DATES: Comments must be received on or before April 26, 2010.

ADDRESSES: You may submit comments bearing the Federal Docket Management System (FDMS) Docket ID FMCSA–2010–0050 using any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov.* Follow the on-line 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:* West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal Holidays.
- *Fax:* 1–202–493–2251.

Each submission must include the Agency name and the docket ID for this Notice. Note that DOT posts all comments received without change to *http://www.regulations.gov,* including any personal information included in a comment. Please see the Privacy Act heading below.

Docket: For access to the docket to read background documents or comments, go to *http://www.regulations.gov* at any time or Room W12–140 on the ground level of the West Building, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The FDMS is available 24 hours each day, 365 days each year. If you want acknowledgment that we received your comments, please include a self-addressed, stamped envelope or postcard or print the acknowledgement page that appears after submitting comments on-line.

Privacy Act: Anyone may search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or of the person signing the comment, if submitted on behalf of an association, business, labor union, *etc.*). You may review the DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19476). This information is also available at *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Dr. Mary D. Gunnels, Director, Medical Programs, (202) 366–4001, *fmcsamedical@dot.gov,* FMCSA, Department of Transportation, 1200 New Jersey Avenue, SE., Room W64–224, Washington, DC 20590–0001. Office hours are from 8:30 a.m. to 5 p.m., Monday through Friday, except Federal holidays.

SUPPLEMENTARY INFORMATION:

Background

Under 49 U.S.C. 31136(e) and 31315, FMCSA may grant an exemption for a 2-year period if it finds "such exemption would likely achieve a level of safety that is equivalent to, or greater than, the level that would be achieved absent such exemption." FMCSA can renew exemptions at the end of each 2-year period. The 19 individuals listed in this notice have each requested an exemption from the vision requirement in 49 CFR 391.41(b)(10), which applies to drivers of CMVs in interstate commerce. Accordingly, the Agency will evaluate the qualifications of each applicant to determine whether granting an exemption will achieve the required level of safety mandated by statute.

Qualifications of Applicants

Dean R. Allen

Mr. Allen, age 55, has had optic nerve atrophy in his left eye since birth. The best corrected visual acuity in his right eye is 20/25 and in his left eye, count-finger vision. Following an examination in 2009, his optometrist noted, "It is my medical opinion, that Mr. Dean Allen has sufficient vision to perform the driving tasks required to operate a commercial vehicle." Mr. Allen reported that he has driven straight trucks for 34 years, accumulating 578,000 miles and tractor-trailer combinations for 25 years, accumulating 275,000 miles. He holds a Class A Commercial Driver's License (CDL) from Oregon. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Donald C. Butler

Mr. Butler, 51, has had cataracts in his left eye since 2005. The best corrected visual acuity in his right eye is 20/20 and in his left eye, 20/400. Following an examination in 2009, his optometrist noted, "It is my opinion that Donald has sufficient vision to perform the driving tasks required to operate a commercial vehicle." Mr. Butler reported that he has driven straight trucks for 2 years, accumulating 8,000 miles and tractor-trailer combinations for 15 years, accumulating 939,900 miles. He holds a Class A CDL from New Mexico. His driving record for the last 3 years shows no crashes and one conviction for speeding in a CMV. He exceeded the speed limit by 10 miles per hour (mph).

Alan R. Fontaine

Mr. Fontaine, 44, has had amblyopia in his right eye since childhood. The best corrected visual acuity in his right eye is 20/50 and in his left eye, 20/20. Following an examination in 2010, his ophthalmologist noted, "I certify under my medical opinion that Mr. Alan Fontaine has sufficient vision to perform the driving tasks required to operate a commercial vehicle." Mr. Fontaine reported that he has driven straight trucks for 3½; years, accumulating 42,000 miles. He holds a Class D operator's license from Connecticut. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Malcolm R. Heins

Mr. Heins, 67, has complete loss of vision in his left eye due to a traumatic injury sustained during childhood. The best corrected visual acuity in his right eye is 20/20. Following an examination in 2009, his optometrist noted, "Malcolm has sufficient vision in his right eye to operate a commercial vehicle." Mr. Heins reported that he has driven straight trucks for 8 years, accumulating 28,000 miles and tractor-trailer combinations for 8 years, accumulating 520,000 miles. He holds a Class A CDL from Wisconsin. His driving record for the last 3 years shows three crashes, for which he was not cited, and no convictions for moving violations in a CMV.

Mark Hill

Mr. Hill, 47, has had retinal and macular detachment in his left eye since birth. The best corrected visual acuity in his right eye is 20/25. Following an examination in 2009, his optometrist

noted, "It is my medical opinion that Mark Hill is qualified and has sufficient vision to perform the driving task required to operate a commercial vehicle." Mr. Hill reported that he has driven straight trucks for 15 years, accumulating 130,500 miles. He holds a Class B CDL from West Virginia. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Herbert C. Hirsch

Mr. Hirsch, 63, has had a prosthetic left eye since childhood. The best corrected visual acuity in his right eye is 20/20. Following an examination in 2009, his ophthalmologist noted, "I certify in my medical opinion, Mr. Herbert Hirsch has full function of his remaining eye and I feel he has sufficient vision to perform the driving tasks required for operating a commercial vehicle." Mr. Hirsch reported that he has driven straight trucks for 40 years, accumulating 800,000 miles and tractor-trailer combinations for 25 years, accumulating 750,000 miles. He holds a Class A CDL from Missouri. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Michael D. Kilgore

Mr. Kilgore, 37, has had demyelinizing optic neuropathy in his left eye since birth. The best corrected visual acuity in his right eye is 20/15 and in his left eye, 20/600. Following an examination in 2009, his optometrist noted, "In my medical opinion, Michael Kilgore has sufficient vision to operate a commercial vehicle." Mr. Kilgore reported that he has driven straight trucks for 10 years, accumulating 300,000 miles and tractor-trailer combinations for 5 years, accumulating 300,000 miles. He holds a Class A CDL from Texas. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Joseph J. Kushak

Mr. Kushak, 38, has optic atrophy of the left eye due to trauma sustained in 2002. The best corrected visual acuity in his right eye is 20/20 and in his left eye, light-perception only. Following an examination in 2009, his optometrist noted, "It is my opinion he has sufficient vision and field to operate a commercial vehicle." Mr. Kushak reported that he has driven straight trucks for 13 years, accumulating 1.3 million miles and tractor-trailer combinations for 5 years, accumulating 500,000 miles. He holds a Class A CDL from Michigan. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Louis C. Lee

Mr. Lee, 47, has had complete loss of vision in his left eye since childhood. The best corrected visual acuity in his right eye is 20/20. Following an examination in 2009, his ophthalmologist noted, "In my medical opinion, Mr. Lee has sufficient vision to perform the driving tasks required for a commercial vehicle." Mr. Lee reported that he has driven straight trucks for 31 years, accumulating 1.2 million miles. He holds an operator's license from Virginia. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Jason T. Montoya

Mr. Montoya, 34, has had amblyopia in his left eye since birth. The best corrected visual acuity in his right eye is 20/15 and in his left eye, 20/400. Following an examination in 2009, his optometrist noted, "I believe from a vision standpoint, Jason is able to perform the driving tasks required to operate a commercial vehicle." Mr. Montoya reported that he has driven straight trucks for 14.5 years, accumulating 145,000 miles and tractor-trailer combinations for 14.5 years, accumulating 145,000 miles. He holds a Class A CDL from New Mexico. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Doug L. Norman

Mr. Norman, 52, has had amblyopia in his right eye since childhood. The best corrected visual acuity in his right eye is 20/70 and in his left eye, 20/20. Following an examination in 2010, his optometrist noted, "Patient should have no difficulty performing necessary driving tasks." Mr. Norman reported that he has driven straight trucks for 12 years, accumulating 180,000 miles, tractor-trailer combinations for 30 years, accumulating 900,000 miles and buses for 8 years, accumulating 80,000 miles. He holds a Class A CDL from North Carolina. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Richard W. Pierce

Mr. Pierce, 62, has had amblyopia in his right eye since childhood. The best corrected visual acuity in his right eye is hand-motion vision and in his left eye, 20/20. Following an examination in 2009, his optometrist noted, "In my medical opinion Mr. Pierce has sufficient central vision in his left eye and sufficient visual fields in each eye to perform the driving tasks required to operate a commercial vehicle." Mr. Pierce reported that he has driven straight trucks for 28 years, accumulating 840,000 miles. He holds a Class A CDL from New Mexico. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Christopher A. Reineck

Mr. Reineck, 34, has had amblyopia in his right eye since birth. The best corrected visual acuity in his right eye is 20/160 and in his left eye, 20/20. Following an examination in 2009, his optometrist noted, "In my opinion, Mr. Reineck does have sufficient vision to perform the driving task required to operate a commercial vehicle." Mr. Reineck reported that he has driven straight trucks for 5 years, accumulating 156,660 miles. He holds a Class B CDL from Ohio. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Carroll R. Rogers

Mr. Rogers, 61, has had a prosthetic right eye since 1975. The best corrected visual acuity in his left eye is 20/20. Following an examination in 2009, his optometrist noted, "Carroll Rogers has sufficient vision to perform the driving tasks required to operate a commercial vehicle." Mr. Rogers reported that he has driven tractor-trailer combinations for 35 years, accumulating 2.1 million miles. He holds a Class A CDL from California. His driving record for the last 3 years shows one crash, for which he was not cited, and no convictions for moving violations in a CMV.

Kevin L. Routin

Mr. Routin, 59, has had aphakia and retinal detachment in his left eye since childhood. The best corrected visual acuity in his right eye is 20/15 and in his left eye, 20/300. Following an examination in 2009, his optometrist noted, "It is my professional judgment that Mr. Routin does have sufficient vision to perform the driving tasks required to operate a commercial vehicle." Mr. Routin reported that he has driven straight trucks for 30 years, accumulating 900,000 miles, tractor-trailer combinations for 25 years, accumulating 3.3 million miles and buses for 10 years, accumulating 30,000 miles. He holds a Class A CDL from Kentucky. His driving record for the last 3 years shows no crashes and no

convictions for moving violations in a CMV.

Lane L. Savoie

Mr. Savoie, 57, has a prosthetic left eye due to a traumatic injury sustained in 1995. The best corrected visual acuity in his right eye is 20/20. Following an examination in 2009, his ophthalmologist noted, "We feel Mr. Savoie has sufficient vision to operate or drive a commercial vehicle." Mr. Savoie reported that he has driven straight trucks for 25 years, accumulating 500,000 miles and tractor-trailer combinations for 25 years, accumulating 2.5 million miles. He holds a Class D chauffeur's license from Louisiana. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Richard G. Schumacher

Mr. Schumacher, 64, has had amblyopia in his right eye since birth. The best corrected visual acuity in his right eye is 20/400 and in his left eye, 20/20. Following an examination in 2009, his ophthalmologist noted, "In my medical opinion, Mr. Schumacher has sufficient vision to perform driving tasks required to operate a commercial vehicle." Mr. Schumacher reported that he has driven tractor-trailer combinations for 19 years, accumulating 2.2 million miles. He holds a Class A CDL from California. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Scott E. Tussey

Mr. Tussey, 49, has had ocular histoplasmosis in his right eye since 2003. The best corrected visual acuity in his right eye is hand-motion vision and in his left eye, 20/20. Following an examination in 2009, his optometrist noted, "In my opinion he has sufficient vision to perform commercial driving tasks." Mr. Tussey reported that he has driven straight trucks for 10 years, accumulating 630,000 miles. He holds a Class A CDL from Kentucky. His driving record for the last 3 years shows one crash, for which he was not cited, and no convictions for moving violations in a CMV.

Todd V. Welch

Mr. Welch, 47, has had amblyopia in his right eye since birth. The best corrected visual acuity in his right eye is hand-motion vision and in his left eye, 20/20. Following an examination in 2009, his optometrist noted, "It is my medical opinion that he has sufficient vision to perform driving tasks required to operate a commercial vehicle." Mr. Welch reported that he has driven straight trucks for 10 years, accumulating 200,000 miles and tractor-trailer combinations for 10 years, accumulating 80,000 miles. He holds a Class A CDL from New York. His driving record for the last 3 years shows no crashes and no convictions for moving violations in a CMV.

Request for Comments

In accordance with 49 U.S.C. 31136(e) and 31315, FMCSA requests public comment from all interested persons on the exemption petitions described in this notice. The Agency will consider all comments received before the close of business April 26, 2010. Comments will be available for examination in the docket at the location listed under the **ADDRESSES** section of this notice. The Agency will file comments received after the comment closing date in the public docket, and will consider them to the extent practicable.

In addition to late comments, FMCSA will also continue to file, in the public docket, relevant information that becomes available after the comment closing date. Interested persons should monitor the public docket for new material.

Issued on: March 22, 2010.

Larry W. Minor,

Associate Administrator for Policy and Program Development.

[FR Doc. 2010–6741 Filed 3–25–10; 8:45 am]

BILLING CODE 4910–EX–P

DEPARTMENT OF TRANSPORTATION

Research and Innovative Technology Administration

Invitation for Public Comment on Mitigation Options for Global Positioning System Satellite Vehicle Number 49

AGENCY: Research and Innovative Technology Administration, DOT.

ACTION: Notice, request for public comments.

SUMMARY: The U.S. Government is providing notice that it is actively considering several mitigation options prior to changing the health status of Global Positioning System (GPS) satellite IIR–20M (satellite vehicle number 49—SVN 49) from unhealthy to healthy. The potential mitigations are each designed to reduce the impact of the unique nature of the SVN 49 signal to a portion of the user segment. The mitigations are described in an Appendix posted in the public docket. The mitigations are intended only for use with the SVN 49 satellite and will not be implemented for any other GPS satellite. Responses from this public comment period will be considered during the final decision to choose which mitigation(s) to implement.

After successful implementation of the selected mitigation(s), U.S. Government leaders will determine the conditions necessary to set SVN 49 healthy. It is anticipated this timeline will occur over the next one to three years. Please review the posted Appendix and submit concerns or adverse impacts that may affect your user equipment to the Docket.

Two teleconferences will be hosted by the U.S. Air Force GPS Wing to discuss the mitigation options. These will be held on March 26, 2010 and April 30, 2010 at 4 PM EDT. The teleconference number is 1–800–366–7242 passcode: 6530000#. Please note that if you want a specific comment made during either telephone conference included in the docket, you must submit a public comment to the docket as outlined below.

DATES: Comment Period: Written comments should be submitted by May 28, 2010.

ADDRESSES: You may submit comments identified by RITA Docket ID Number RITA 2010–0002 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: 202–493–2251.

Instructions: Identify docket number, RITA 2010–0002, at the beginning of your comments. To receive confirmation that DOT received your comments, include a self-addressed stamped postcard containing the Docket number.

All comments received by DOT will be posted at *http://www.regulations.gov.*

All comments/questions will be posted electronically without change or edits, including any personal information provided.

Privacy Act: Anyone is able to search the electronic form of all comments/questions filed in our dockets by the name of the individual submitting the comment or question (or signing the comment, if submitted on behalf of an

association, corporation, business entity, 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*.

Confidential Business Information: If you wish to submit any information under a claim of confidentiality, you should submit three copies of your complete submission, including the information you claim to be confidential business information, to the address given below under **FOR FURTHER INFORMATION CONTACT**. In addition, you should submit a copy from which you have deleted the claimed confidential business information to the docket. When you send a comment containing information identified as confidential business information, you should include a cover letter setting forth the reasons you believe the information qualifies as "confidential business information". (49 CFR 7.17)

FOR FURTHER INFORMATION CONTACT: Ms. Karen Van Dyke, DOT/RITA, 1200 New Jersey Ave., SE., Washington, DC 20590, 202–366–3180, *karen.vandyke@dot.gov* or Lt. Col. James Lake, 310–653–3613, *svn49.information@losangeles.af.mil.*

SUPPLEMENTARY INFORMATION:

Background

The GPS satellite SVN 49 has a unique signal that may result in degraded performance for some GPS user equipment. This satellite currently operates with the navigational message set in an unhealthy state to prevent any adverse impact to users. To minimize the adverse impacts, several mitigations are under consideration. Each mitigation is intended for a specific user group and can be used with or without the other mitigations. All mitigations are intended for use with SVN 49 only and no changes will be made regarding other GPS satellites. The mitigations are briefly described as:

- Set SVN 49 healthy with current 152m Antenna Phase Center (APC) and associated clock offsets.
- Set SVN 49 healthy with factory default APC and clock offset.
- Users switch to multipath-resistant receivers to minimize adverse impact from SVN 49 signal.
- Modify receiver software to use look-up table corrections to account for unique SVN 49 signal.
- Increase SVN 49 User Range Accuracy (URA) minimum value to 3 by changing bits in the GPS data message that allow user equipment to de-weight or exclude SVN–49 signals.
- Remove data modulation from L2 P(Y)-code to mitigate impact to high precision users.
- Change L2C PRN code to a "unique sequence" to prevent L2C users from including SVN 49 in their solutions.
- Change SVN–49 from PRN–01 to PRN–32 to prevent updates to WAGE users.
- Use spare health code so future users could use SVN 49 despite unhealthy setting.

More information is presented in the Appendix posted in the public docket. Implementation of each mitigation is contingent upon several factors including cost, number of users impacted, schedule, and the needs of the U.S. Government. If you would like to submit a public comment concerning these proposed actions, please follow the instructions listed above.

Issued in Washington, DC, on March 22, 2010.

Robert L. Bertini,

Deputy Administrator.

[FR Doc. 2010–6814 Filed 3–25–10; 8:45 am]

BILLING CODE 4910–HY–P

DEPARTMENT OF THE TREASURY

Bureau of the Public Debt

Proposed Collection: Comment Request

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995, Public Law 104–13 (44 U.S.C. 3506(c)(2)(A). Currently the Bureau of the Public Debt within the Department of the Treasury is soliciting comments concerning the Regulations Governing Payments by the Automated Clearing House method on Account of United States Securities.

DATES: Written comments should be received on or before May 22, 2010, to be assured of consideration.

ADDRESSES: Direct all written comments to Bureau of the Public Debt, Judi Owens, 200 Third Street, A4–A, Parkersburg, WV 26106–1328, or *judi.owens@bpd.treas.gov.*

FOR FURTHER INFORMATION CONTACT: Requests for additional information should be directed to Judi Owens, Bureau of the Public Debt, 200 Third Street, A4–A, Parkersburg, WV 26106–1328, (304) 480–8150.

SUPPLEMENTARY INFORMATION:

Title: Regulations Governing Payments by the Automated Clearing House Method on Account of United States Securities.

OMB Number: 1535–0094.

Abstract: The regulations authorize payment to investors in United States securities by the Automated Clearing House (ACH Method).

Current Actions: None.

Type of Review: Extension.

Affected Public: Individuals, Businesses or other for-profit, and state or local governments.

Estimated Total Annual Burden Hours: 1.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Dated: March 22, 2010.

Judi Owens,

Manager, Information Management Branch.

[FR Doc. 2010–6703 Filed 3–25–10; 8:45 am]

BILLING CODE 4810–39–P

DEPARTMENT OF THE TREASURY

Bureau of the Public Debt

Proposed Collection: Comment Request

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the

Paperwork Reduction Act of 1995, Public Law 104–13 (44 U.S.C. 3506(c)(2)(A)). Currently the Bureau of the Public Debt within the Department of the Treasury is soliciting comments concerning the Regulations Governing United States Savings Bonds Series E/EE and H/HH.

DATES: Written comments should be received on or before May 22, 2010, to be assured of consideration.

ADDRESSES: Direct all written comments to Bureau of the Public Debt, Judi Owens, 200 Third Street, A4–A, Parkersburg, WV 26106–1328, or *judi.owens@bpd.treas.gov.*

FOR FURTHER INFORMATION CONTACT: Requests for additional information should be directed to Judi Owens, Bureau of the Public Debt, 200 Third Street, A4–A, Parkersburg, WV 26106–1328, (304) 480–8150.

SUPPLEMENTARY INFORMATION:

Title: Regulations Governing United States Savings Bonds Series E/EE and H/HH.

OMB Number: 1535–0095.

Abstract: The regulations mandate the payment of H/HH interest by Direct Deposit (ACH Method).

Current Actions: None.

Type of Review: Extension.

Affected Public: Individuals, Businesses or other for-profit, and State or local governments.

Estimated Total Annual Burden Hours: 1.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Dated: March 22, 2010.

Judi Owens,

Manager, Information Management Branch.

[FR Doc. 2010–6704 Filed 3–25–10; 8:45 am]

BILLING CODE 4810–39–P

DEPARTMENT OF THE TREASURY

Bureau of the Public Debt

Proposed Collection: Comment Request

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995, Public Law 104–13 (44 U.S.C. 3506(c)(2)(A). Currently the Bureau of the Public Debt within the Department of the Treasury is soliciting comments concerning the transaction request for U.S. Treasury Securities State and Local Government Series Early Redemption.

DATES: Written comments should be received on or before May 22, 2010, to be assured of consideration.

ADDRESSES: Direct all written comments to Bureau of the Public Debt, Judi Owens, 200 Third Street, A4–A, Parkersburg, WV 26106–1328, or *judi.owens@bpd.treas.gov.*

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the form and instructions should be directed to Judi Owens, Bureau of the Public Debt, 200 Third Street, A4–A, Parkersburg, WV 26106–1328, (304) 480–8150.

SUPPLEMENTARY INFORMATION:

Title: U.S. Treasury Securities State and Local Government Series Early Redemption Request.

OMB Number: 1535–0121.

Form Numbers: PD F 5377.

Abstract: The information is requested to process early redemption requests for the owners of securities of State and Local Government Series.

Current Actions: None.

Type of Review: Extension.

Affected Public: State or Local Government.

Estimated Number of Respondents: 3,350.

Estimated Time Per Respondent: 30 minutes.

Estimated Total Annual Burden Hours: 1,675.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Dated: March 22, 2010.

Judi Owens,

Manager, Information Management Branch.

[FR Doc. 2010–6705 Filed 3–25–10; 8:45 am]

BILLING CODE 4810–39–P

DEPARTMENT OF THE TREASURY

Bureau of the Public Debt

Proposed Collection: Comment Request

ACTION: Notice and request for comments.

SUMMARY: The Department of the Treasury, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995, Public Law 104–13 (44 U.S.C. 3506(c)(2)(A)). Currently the Bureau of the Public Debt within the Department of the Treasury is soliciting comments concerning the application for disposition of savings bonds after the death of the registered owner(s).

DATES: Written comments should be received on or before May 22, 2010, to be assured of consideration.

ADDRESSES: Direct all written comments to Bureau of the Public Debt, Judi Owens, 200 Third Street, A4–A, Parkersburg, WV 26106–1328, or *judi.owens@bpd.treas.gov.*

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the form and instructions should be directed to Judi Owens, Bureau of the Public Debt, 200 Third Street, A4–A, Parkersburg, WV 26106–1328, (304) 480–8150.

SUPPLEMENTARY INFORMATION:

Title: Application for Disposition of Series I Savings Bonds After the Death of the Registered Owner(s).

OMB Number: 1535–0131.

Form Number: PD F 5394.

Abstract: The information is requested to request payment or reissue of savings bonds belonging to a deceased owner.

Current Actions: None.

Type of Review: Extension.

Affected Public: Individuals.

Estimated Number of Respondents: 4,100.

Estimated Time Per Respondent: 30 minutes.

Estimated Total Annual Burden Hours: 2,050.

Request for Comments: Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval. All comments will become a matter of public record. Comments are invited on: (a) Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology; and (e) estimates of capital or start-up costs and costs of operation, maintenance, and purchase of services to provide information.

Dated: March 22, 2010.

Judi Owens,

Manager, Information Management Branch.

[FR Doc. 2010–6708 Filed 3–25–10; 8:45 am]

BILLING CODE 4810–39–P

DEPARTMENT OF THE TREASURY

Community Development Financial Institutions Fund

Bank Enterprise Award (BEA) Program; Notice of Funds Availability

Funding Opportunity Title: Notice of Funds Availability (NOFA) inviting applications for the FY 2010 Funding Round of the Bank Enterprise Award (BEA) Program.

Announcement Type: Announcement of funding opportunity.

Catalog of Federal Domestic Assistance (CDFA) Number: 21.021.

DATES: Applications for the FY 2010 funding round of the BEA Program must be received by 5 p.m. ET on May 5, 2010. Applications must meet all eligibility and other requirements and deadlines, as applicable, set forth in this NOFA. Applications received after 5 p.m. ET on May 5, 2010 will be rejected.

Executive Summary: Subject to funding availability, this NOFA is issued in connection with the FY 2010 funding round of the BEA Program. The BEA Program is administered by the Community Development Financial Institutions (CDFI) Fund. The BEA Program encourages Insured Depository Institutions to increase their levels of loans, investments, services, and technical assistance within Distressed Communities, and financial assistance to CDFIs through grants, stock purchases, loans, deposits, and other forms of financial and technical assistance, during a specified period.

I. Funding Opportunity Description

A. *Baseline Period and Assessment Period dates:* A BEA Program award is based on an Applicant's increases in Qualified Activities from the Baseline Period to the Assessment Period. For the FY 2010 funding round, the Baseline Period is calendar year 2008 (January 1, 2008 through December 31, 2008), and the Assessment Period is calendar year 2009 (January 1, 2009 through December 31, 2009).

B. *Program regulations:* The regulations governing the BEA Program can be found at 12 CFR part 1806 (the Interim Rule) and provide guidance on evaluation criteria and other requirements of the BEA Program. The CDFI Fund encourages Applicants to review the Interim Rule. Detailed application content requirements are found in the application related to this NOFA. Each capitalized term in this NOFA is more fully defined either in the Interim Rule or the application.

C. *Qualified Activities:* Qualified Activities are defined in the Interim Rule to include CDFI Related Activities, Distressed Community Financing Activities, and Service Activities (12 CFR 1806.103(nn)). CDFI Related Activities include Equity Investments, Equity-Like Loans, and CDFI Support Activities (12 CFR 1806.103(r)). Distressed Community Financing Activities (12 CFR 1806.103(u)) include Affordable Housing Loans, Affordable Housing Development Loans and related Project Investments; Education Loans; Commercial Real Estate Loans and related Project Investments; Home Improvement Loans; and Small Business Loans and related Project Investments. Service Activities (12 CFR 1806.103(nn)) include Deposit Liabilities, Financial Services, Community Services, Targeted Financial Services, and Targeted Retail Savings/Investment Products.

When calculating BEA Program award amounts, the CDFI Fund will count only the amount that an Applicant reasonably expects to disburse for a Qualified Activity within 12 months from the end of the Assessment Period. Subject to the requirements outlined in Section VII. B.1. of this NOFA, in the case of Commercial Real Estate Loans and CDFI Related Activities, the total principal amount of the transaction must be $10 million or less to be considered a Qualified Activity. Notwithstanding the foregoing, the CDFI Fund, in its sole discretion, may consider transactions with a total principal value of over $10 million, subject to review. Qualified Activities funded with prior funding round Award dollars shall not constitute a Qualified Activity for the purposes of calculating or receiving an Award.

D. *Designation of Distressed Community:* Each CDFI Partner that is the recipient of CDFI Support Activities from an Applicant must designate a Distressed Community. CDFI Partners that receive Equity Investments are not required to designate Distressed Communities. Applicants applying for a BEA Program award for carrying out Distressed Community Financing Activities or Service Activities must verify that addresses of both Baseline and Assessment Period activities are in Distressed Communities when completing their application. Please note that a Distressed Community as defined by the BEA Program is not necessarily the same as an Investment Area as defined by the CDFI Program or a Low-Income Community as defined by the New Markets Tax Credit (NMTC) Program.

1. *Definition of Distressed Community:* A Distressed Community must meet certain minimum geographic area and distress requirements, which are defined in the Interim Rule at 12 CFR 1806.103(t) and more fully described in 12 CFR 1806.200.

2. *Designation of Distressed Community:* A CDFI Partner (as appropriate) shall designate an area as a Distressed Community by:

(a) Selecting Geographic Units which individually meet the minimum area eligibility requirements; or

(b) selecting two or more Geographic Units which, in the aggregate, meet the minimum area eligibility requirements set forth in paragraph (1) of this section provided that no Geographic Unit selected by the Applicant within the area has a poverty rate of less than 20 percent.

A CDFI Partner designates a Distressed Community by submitting a map of the Distressed Community as described in the applicable BEA Program application. CDFI Partners must use the CDFI Fund Information Mapping System (CIMS) to designate Distressed Communities. CIMS is accessed through *myCDFIFund* and contains step-by-step instructions on how to create and print the aforementioned map of the Distressed Community. *MyCDFIFund* is an electronic interface that is accessed through the CDFI Fund's Web site (*http://www.cdfifund.gov*). Instructions for registering with *myCDFIFund* are available on the CDFI Fund's Web site. If you have any questions or problems with registering, please contact the CDFI Fund IT HelpDesk by telephone at (202) 622–2455, or by e-mail to *ITHelpDesk@cdfi.treas.gov.*

II. Award Information

A. *Award amounts:* Subject to funding availability, the CDFI Fund expects that it may award approximately $25 million for FY 2010 BEA Program awards, in appropriated funds under this NOFA. The CDFI Fund reserves the right to award in excess of said funds under this NOFA, provided that the appropriated funds are available. The CDFI Fund reserves the right to impose a maximum award amount. Under no circumstances will an award be higher than $2 million for any Awardee. The CDFI Fund also reserves the right to impose a minimum award amount. Further, the CDFI Fund reserves the right to fund, in whole or in part, any, all, or none of the applications submitted in response to this NOFA. The CDFI Fund reserves the right to reallocate funds from the amount that is anticipated to be available under this NOFA to other CDFI Fund programs, or reallocate remaining funds to a future BEA funding round, if the CDFI Fund determines that the number of awards made under this NOFA is fewer than projected.

When calculating award amounts, the CDFI Fund will count only the amount that an Applicant reasonably expects to disburse on a transaction within 12 months from the end of the Assessment Period.

B. *Types of awards:* BEA Program awards are made in the form of grants.

C. *Notice of Award and Award Agreement:* Each awardee under this NOFA must sign a Notice of Award and an Award Agreement prior to disbursement by the CDFI Fund of award proceeds. The Notice of Award and the Award Agreement contains the terms and conditions of the award. For further information, see Section VIII of this NOFA.

III. Eligibility

A. *Eligible Applicants:* Eligible Applicants for the BEA Program must be Insured Depository Institutions, as defined in 12 U.S.C. 1813(c)(2). An Applicant must be FDIC-insured as of December 31, 2009 for the FY 2010 funding round to be eligible for consideration for a BEA Program award under this NOFA. For the purposes of this NOFA, an eligible CDFI Applicant is an Insured Depository Institution that has been certified as a CDFI as of the end of the applicable Assessment Period.

In determining eligibility to receive an Award, the CDFI Fund may take into consideration the views of the appropriate Federal bank regulatory agency, as defined in Section 3 of the Federal Deposit Insurance Act (12 U.S.C. 1813(q)). The CDFI Fund may choose not to approve a BEA award to an Insured Depository Institution Applicant for which the appropriate Federal bank regulatory agency indicates safety and soundness concerns. In addition, the CDFI Fund may take into consideration Community Reinvestment Act (CRA) assessments of Insured Depository Institutions and/or their Affiliates.

1. *Prior awardees:* Applicants must be aware that success in a prior round of any of the CDFI Fund's programs is not indicative of success under this NOFA. For purposes of this section, the CDFI Fund will consider an Affiliate to be any entity that Controls (as such term is defined in paragraph (f) below) the Applicant, is Controlled by the Applicant or is under common Control with the Applicant (as determined by the CDFI Fund) and any entity otherwise identified as an affiliate by the Applicant in its Application under this NOFA. Prior BEA Program Awardees and prior awardees of other CDFI Fund programs are eligible to apply under this NOFA, except as follows:

(a) *Failure to meet reporting requirements:* The CDFI Fund will not consider an application submitted by an Applicant if the Applicant or its Affiliate is a prior CDFI Fund awardee or allocatee under any CDFI Fund program and is not current on the reporting requirements set forth in the previously executed assistance, award or allocation agreement(s), as of the application deadline(s) of this NOFA. Please note that the CDFI Fund only acknowledges the receipt of reports that are complete. As such, incomplete reports or reports that are deficient of required elements will not be recognized as having been received.

(b) *Pending resolution of noncompliance:* If an Applicant that is a prior awardee or allocatee under any CDFI Fund program: (i) Has submitted complete and timely reports to the CDFI Fund that demonstrate noncompliance with a previous assistance, award or allocation agreement, and (ii) the CDFI Fund has yet to make a final determination as to whether the entity is in default of its previous assistance, award or allocation agreement, the CDFI Fund will consider the Applicant's application under this NOFA pending full resolution, in the sole determination of the CDFI Fund, of the noncompliance. Further, if an Affiliate of the Applicant that is a prior CDFI Fund awardee or allocatee under any CDFI Fund program: (i) Has submitted complete and timely reports to the CDFI Fund that demonstrate noncompliance with a previous assistance, award or allocation agreement, and (ii) the CDFI Fund has yet to make a final determination as to whether the entity is in default of its previous assistance, award or allocation agreement, the CDFI Fund will consider the Applicant's application under this NOFA pending full resolution, in the sole determination of the CDFI Fund, of the noncompliance.

(c) *Default status:* The CDFI Fund will not consider an application submitted by an Applicant that is a prior CDFI Fund awardee or allocatee under any CDFI Fund program if, as of the applicable application deadline of this NOFA, the CDFI Fund has made a final determination that such Applicant is in default of a previously executed assistance, award or allocation agreement(s). Further, an entity is not eligible to apply for an award pursuant to this NOFA if, as of the applicable application deadline, the CDFI Fund has made a final determination that an Affiliate of the Applicant: (i) Is a prior CDFI Fund awardee or allocatee under any CDFI Fund program, and (ii) has been determined by the CDFI Fund to be in default of a previously executed assistance, award or allocation agreement(s). Such entities will be ineligible to apply for an award pursuant to this NOFA so long as the Applicant's, or its Affiliate's, prior award or allocation remains in default status or such other time period as specified by the CDFI Fund in writing.

(d) *Termination in default:* The CDFI Fund will not consider an application submitted by an Applicant that is a prior CDFI Fund awardee or allocatee under any CDFI Fund program if, within the 12-month period prior to the

application deadline of this NOFA, the CDFI Fund has made a final determination that such Applicant's prior award or allocation terminated in default of the assistance, award or allocation agreement and the CDFI Fund has provided written notification of such determination to such Applicant. Further, an entity is not eligible to apply for an award pursuant to this NOFA if, within the 12-month period prior to the application deadline of this NOFA, the CDFI Fund has made a final determination that an Affiliate of the Applicant is a prior CDFI Fund awardee or allocatee under any CDFI Fund program whose award or allocation terminated in default of the assistance, award or allocation agreement and the CDFI Fund has provided written notification of such determination to the defaulting entity.

(e) *Undisbursed balances:* For the purposes of this section, the term "undisbursed funds" is defined as: (i) In the case of prior BEA Program award(s), any balance of award funds equal to or greater than five (5) percent of the total prior BEA Program award(s) that remains undisbursed more than three (3) years after the end of the calendar year in which the CDFI Fund signed an award agreement with the awardee, and (ii) in the case of prior CDFI Program or other CDFI Fund program award(s), any balance of award funds equal to or greater than five (5) percent of the total prior award(s) that remains undisbursed more than two (2) years after the end of the calendar year in which the CDFI Fund signed an assistance agreement with the awardee.

The term "undisbursed funds" does not include (i) tax credit allocation authority allocated through the New Markets Tax Credit Program; (ii) any award funds for which the CDFI Fund received a full and complete disbursement request from the awardee as of the application deadline of this NOFA; or (iii) any award funds for an award that has been terminated, expired, rescinded, or deobligated by the CDFI Fund.

The CDFI Fund will not consider an application submitted by an Applicant that is a prior CDFI Fund awardee under any CDFI Fund program if the Applicant has a balance of undisbursed funds under said prior award(s), as of the application deadline of this NOFA. Further, an entity is not eligible to apply for an award pursuant to this NOFA if an Affiliate of the Applicant is a prior CDFI Fund awardee under any CDFI Fund program, and has a balance of undisbursed funds under said prior award(s), as of the application deadline of this NOFA. In the case where an Affiliate of the Applicant is a prior CDFI Fund awardee under any CDFI Fund program, and has a balance of undisbursed funds under said prior award(s), as of the application deadline of this NOFA, the CDFI Fund will include the combined awards of the Applicant and such Affiliates when calculating the amount of undisbursed funds.

(f) *Control:* For purposes of this NOFA, the term "Control" means: (1) Ownership, control, or power to vote 25 percent or more of the outstanding shares of any class of voting securities as defined in 12 CFR 1805.104(mm) of any legal entity, directly or indirectly or acting through one or more other persons; (2) control in any manner over the election of a majority of the directors, trustees, or general partners (or individuals exercising similar functions) of any legal entity; or (3) the power to exercise, directly or indirectly, a controlling influence over the management, credit or investment decisions, or policies of any legal entity.

(g) *Contact the CDFI Fund:* Accordingly, Applicants that are prior awardees and/or allocatees under any CDFI Fund program are advised to: (i) Comply with requirements specified in assistance, award and/or allocation agreement(s), and (ii) contact the CDFI Fund to ensure that all necessary actions are underway for the disbursement of any outstanding balance of a prior award(s). All outstanding reports, compliance or disbursement questions should be directed to Certification, Compliance, Monitoring and Evaluation support by e-mail at *cme@cdfi.treas.gov;* by telephone at (202) 622–6330; by facsimile at (202) 622–6453; or by mail to CDFI Fund, 601 13th Street, NW., Suite 200 South, Washington, DC 20005. The CDFI Fund will respond to Applicants' reporting, compliance or disbursement questions between the hours of 9 a.m. and 5 p.m. ET, starting on the date of the publication of this NOFA through May 3, 2010. The CDFI Fund will not respond to Applicants' reporting, compliance or disbursement telephone calls or e-mail inquiries that are received after 5 p.m. ET on May 3, 2010.

2. *Cost sharing and matching fund requirements:* Not applicable.

IV. Application and Submission Information

A. *MyCDFIFund Accounts:* All Applicants must register User and Organization accounts in myCDFIFund, the CDFI Fund's Internet-based interface. Authorized representatives and contacts must register as Users and the Applicant must be registered as an Organization in myCDFIFund as of the Application deadline in order to be considered to have submitted a complete Application. As myCDFIFund is the CDFI Fund's primary means of communication with applicants and awardees, Applicants must make sure that they update the contact information in their myCDFIFund accounts before the Application deadline. For more information on myCDFIFund, please see the "Frequently Asked Questions" link posted at *https://www.cdfifund.gov/myCDFI/Help/Help.asp.*

B. *Application Content Requirements:* Detailed application content requirements are found in the Application related to this NOFA. Applicants must submit all materials described in and required by the Application by the applicable deadlines. Additional information, including instructions relating to the submission of the Application via myCDFIFund, the CDFI Fund's Internet-based interface, is set forth in further detail in the Application.

Please note that, pursuant to OMB guidance (68 FR 38402), each Applicant must provide, as part of its Application submission, a Dun and Bradstreet Data Universal Numbering System (DUNS) number. In addition, each Application must include a valid and current Employer Identification Number (EIN), with a letter or other documentation from the Internal Revenue Service (IRS) confirming the EIN. Applicants should allow sufficient time for the IRS and/or Dun and Bradstreet to respond to inquiries and/or requests for identification numbers. An Application that does not include an EIN is incomplete and cannot be transmitted to the CDFI Fund. The preceding sentences do not limit the CDFI Fund's ability to contact an Applicant for the purpose of confirming or clarifying information regarding a DUNS number or EIN number. Once an Application is submitted, the Applicant will not be allowed to change any element of the Application.

As set forth in further detail in the Application, any Qualified Activity missing the required documentation will be disqualified. Applicants will not be allowed to submit missing documentation for Qualified Activities after the application deadline.

C. *Form of Application Submission:* Applications Submitted via myCDFIFund: Applicants must submit Applications under this NOFA electronically, through myCDFIFund, the CDFI Fund's Internet-based interface. No paper submittals or attachments will be accepted.

Applications sent by mail, facsimile or other form will generally not be accepted, except in circumstances approved in advance by the CDFI Fund, in its sole discretion. The CDFI Fund will post to its Web site, *http://www.cdfifund.gov,* instructions for accessing and submitting Applications as soon as they become available.

Qualified Activity documentation and other attachments as specified in the applicable BEA Program Application must be sent to: Bureau of the Public Debt, CDFI Fund—Awards Management, 200 Third Street, A2–B, Parkersburg, West Virginia 26106. The telephone number to be used in conjunction with overnight mailings to this address is (304) 480–5450. The CDFI Fund will not accept Applications in its offices in Washington, DC. Applications and attachments received in the CDFI Fund's Washington, DC office will be rejected.

D. *Application Deadlines:* The deadline for receipt of Applications via myCDFIFund for the FY 2010 funding round is 5 p.m. ET on May 5, 2010. The deadline for receipt of paper documentation at the BPD address specified above is 5 p.m. ET, May 5, 2010. Applications and other required documents and other attachments received after the deadline on the applicable date will be rejected. Please note that the document submission deadlines in this NOFA and the funding Application are strictly enforced. The CDFI Fund will not grant exceptions or waivers for late delivery of documents including, but not limited to, late delivery that is caused by third parties such as the United States Postal Service, couriers or overnight delivery services.

V. Intergovernmental Review

Not Applicable.

VI. Funding Restrictions

Not Applicable.

VII. Application Review Information

A. *CDFI Related Activities:* CDFI Related Activities include Equity Investments, Equity-Like Loans, and CDFI Support Activities provided to eligible CDFI Partners. In addition to regulatory requirements, this NOFA provides the following:

1. *Eligible CDFI Partner:* CDFI Partner is defined as a CDFI that has been provided assistance in the form of CDFI Related Activities by an Applicant (12 CFR 1806.103(p)). For the purposes of this NOFA, an eligible CDFI Partner is an entity that has been certified as a CDFI as of the end of the applicable Assessment Period.

2. *Limitations on Eligible Qualified Activities Provided to Certain CDFI Partners:* An Applicant that is also a CDFI cannot receive credit for any financial assistance or Qualified Activities provided to a CDFI Partner that is also an FDIC-insured depository institution or depository institution holding company.

3. *Certificates of Deposit:* Section 1806.103(r) of the Interim Rule states that any certificate of deposit placed by an Applicant or its Subsidiary in a CDFI that is a bank, thrift, or credit union must be: (i) Uninsured and committed for at least three years; or (ii) insured, committed for a term of at least three years, and provided at an interest rate that is materially below market rates, in the determination of the CDFI Fund.

(a) For purposes of this NOFA, "materially below market interest rate" is defined as an annual percentage rate that does not exceed 100 percent of yields on Treasury securities at constant maturity as interpolated by Treasury from the daily yield curve and available on the Treasury Web site at *http://www.treas.gov/offices/domestic-finance/debt-management/interest-rate/yield.shtml.* For example, for a three-year certificate of deposit, Applicants should use the three-year rate U.S. Government securities, Treasury Yield Curve Rate posted for that business day. The Treasury updates the Web site daily at approximately 5:30 p.m. ET. Certificates of deposit placed prior to that time may use the rate posted for the previous business day. The annual percentage rate on a certificate of deposit should be compounded quarterly, semi-annually, or annually. In addition, Applicants should determine whether a certificate of deposit is insured based on the total amount that the Applicant or its Subsidiary has on deposit on the day the certificate of deposit is placed. An Applicant must note, in its BEA Program application, whether the certificate of deposit is insured or uninsured.

(b) For purposes of this NOFA, a deposit placed by an Applicant directly with a CDFI Partner that participates in a deposit network or service may be treated as eligible under this NOFA if it otherwise meets the criteria for deposits in 1806.103(r) and the CDFI Partner retains the full amount of the initial deposit or an amount equivalent to the full amount of the initial deposit through a deposit network exchange transaction.

4. *Equity-Like Loans:* An Equity-Like Loan is a loan provided by an Applicant or its Subsidiary to a CDFI, and made on such terms that it has characteristics of an Equity Investment, as such characteristics may be specified by the CDFI Fund (12 CFR 1806.103(z)). For purposes of this NOFA, Equity-Like Loans must meet the following characteristics:

(a) At the end of the initial term, the loan must have a definite rolling maturity date that is automatically extended on an annual basis if the CDFI borrower continues to be financially sound and carry out a community development mission;

(b) Periodic payments of interest and/or principal may only be made out of the CDFI borrower's available cash flow after satisfying all other obligations;

(c) Failure to pay principal or interest (except at maturity) will not automatically result in a default of the loan agreement; and

(d) The loan must be subordinated to all other debt except for other Equity-Like Loans.

Notwithstanding the foregoing, the CDFI Fund reserves the right to determine, in its sole discretion and on a case-by-case basis, whether an instrument meets the above-stated characteristics of an Equity-Like Loan.

B. *Distressed Community Financing Activities and Service Activities:* Distressed Community Financing Activities include Affordable Housing Loans, Affordable Housing Development Loans and related Project Investments, Education Loans, Commercial Real Estate Loans and related Project Investments, Home Improvement Loans, and Small Business Loans and related Project Investments (12 CFR 1806.103(u)). In addition to the regulatory requirements, this NOFA provides the following additional requirements:

1. *Commercial Real Estate Loans and related Project Investments:* For purposes of this NOFA, eligible Commercial Real Estate Loans (12 CFR 1806.103(l)) and related Project Investments (12 CFR 1806.103(ll)) are generally limited to transactions with a total principal value of $10 million or less. Notwithstanding the foregoing, the CDFI Fund, in its sole discretion, may consider transactions with a total principal value of over $10 million, subject to review. For such transactions, Applicants must provide a separate narrative, or other information, to demonstrate that the proposed project offers, or significantly enhances the quality of, a facility or service not currently provided to the Distressed Community.

2. *Reporting certain Financial Services:* The CDFI Fund will value the administrative cost of providing certain Financial Services using the following per unit values:

(a) $100.00 per account for Targeted Financial Services;

(b) $50.00 per account for checking and savings accounts that do not meet the definition of Targeted Financial Services;

(c) $5.00 per check cashing transaction;

(d) $25,000 per new ATM installed at a location in a Distressed Community;

(e) $2,500 per ATM operated at a location in a Distressed Community;

(f) $250,000 per new retail bank branch office opened in a Distressed Community; and

(g) In the case of Applicants engaging in Financial Services activities not described above, the CDFI Fund will determine the unit value of such services.

When reporting the opening of a new retail bank branch office, the Applicant must certify that it has not operated a retail branch in the same census tract in which the new retail branch office is being opened in the past three years, and that such new branch will remain in operation for at least the next five years.

Financial Service Activities must be provided by the Applicant to Low- and Moderate-Income Residents. An Applicant may determine the number of Low- and Moderate-Income individuals who are recipients of Financial Services by either: (i) Collecting income data on its Financial Services customers; or (ii) certifying that the Applicant reasonably believes that such customers are Low- and Moderate-Income individuals and providing a brief analytical narrative with information describing how the Applicant made this determination.

C. *Priority Factors:* Priority Factors are the numeric values assigned to individual types of activity within: (i) The Distressed Community Financing, and (ii) Services categories of Qualified Activities. For the purposes of this NOFA, Priority Factors will be based on the Applicant's asset size as of the end of the Assessment Period (December 31, 2009) as reported by the Applicant in the Application. Asset size classes (*i.e.,* small banks, intermediate-small banks, and large banks) will correspond to the CRA asset size classes set by the four Federal bank regulatory agencies and that were effective as of the end of the Assessment Period. The Priority Factor works by multiplying the change in a Qualified Activity by the assigned Priority Factor to achieve a "weighted value." This weighted value of the change would be multiplied by the applicable award percentage to yield the award amount for that particular activity. For purposes of this NOFA, the CDFI Fund is establishing Priority Factors based on Applicant asset size to be applied to all activity within the Distressed Community Financing Activities and Service Activities categories only, as follows:

CRA Asset size classification	Priority factor
Small banks (assets of less than $274 million as of 12/31/2009)	5.0
Intermediate—small banks (assets of greater than $274 million but less than $1.109 billion as of 12/31/2009)	3.0
Large banks (assets of $1.109 billion or greater as of 12/31/2009)	1.0

D. *Certain Limitations on Qualified Activities:*

1. Low-Income Housing Tax Credits. Financial assistance provided by an Applicant for which the Applicant receives benefits through Low-Income Housing Tax Credits, authorized pursuant to Section 42 of the Internal Revenue Code, as amended (26 U.S.C. 42), shall not constitute an Equity Investment, Project Investment, or other Qualified Activity, for the purposes of calculating or receiving a Bank Enterprise Award.

2. New Markets Tax Credits. Financial assistance provided by an Applicant for which the Applicant receives benefits as an investor in a Community Development Entity that has received an allocation of New Markets Tax Credits, authorized pursuant to Section 45D of the Internal Revenue Code, as amended (26 U.S.C. 45D), shall not constitute an Equity Investment, Project Investment, or other Qualified Activity, for the purposes of calculating or receiving a Bank Enterprise Award.

3. Loan Renewals and Refinances. Financial assistance provided by an Applicant shall not constitute a Qualified Activity, as defined in this part, for the purposes of calculating or receiving an award if, such financial assistances consists of a loan that has matured and is then renewed by the Applicant or consists of a loan that is retired or restructured using the proceeds of a new commitment by the Applicant.

4. Prior BEA Awards. Qualified Activities funded with prior funding round Award dollars shall not constitute a Qualified Activity for the purposes of calculating or receiving an Award.

5. Prior CDFI Program Awards. No CDFI may receive a BEA Program award for activities funded by a CDFI Program award.

E. *Award percentages, award amounts, selection process:* The Interim Rule describes the process for selecting Applicants to receive BEA Program awards and determining award amounts. Applicants will calculate and request an estimated award amount in accordance with a multiple step procedure that is outlined in the Interim Rule (at 12 CFR 1806.202). As outlined in the Interim Rule at 12 CFR 1806.203, the CDFI Fund will determine actual award amounts based on the availability of funds, increases in Qualified Activities from the Baseline Period to the Assessment Period, and each Applicant's priority ranking. In calculating the increase in Qualified Activities, the CDFI Fund will determine the eligibility of each transaction for which an Applicant has applied for a BEA Program award. In some cases, the actual award amount calculated by the CDFI Fund may not be the same as the estimated award amount requested by the Applicant.

In the CDFI Related Activities category (except for an Equity Investment or Equity-Like Loan), if an Applicant is a CDFI, such estimated award amount will be equal to 18 percent of the increase in Qualified Activity for the category. If an Applicant is not a CDFI, such estimated award amount will be equal to 6 percent of the increase in Qualified Activity for the category. Notwithstanding the foregoing, for an Applicant that is a CDFI and for an Applicant that is not a CDFI, the award percentage applicable to an Equity Investment, Equity-Like Loan, or Grant in a CDFI shall be 15 percent of the increase in Qualified Activity for the category. For the Distressed Community Financing Activities and Service Activities categories, if an Applicant is a CDFI, such estimated award amount will be equal to 9 percent of the weighted value of the increase in Qualified Activity for the category. If an Applicant is not a CDFI, such estimated award amount will be equal to 3 percent of the weighted value of the increase in Qualified Activity for the category.

If the amount of funds available during the funding round is insufficient for all estimated award amounts, Awardees will be selected based on the process described in the Interim Rule at 12 CFR 1806.203(b). This process gives funding priority to Applicants that undertake activities in the following order: (i) CDFI Related Activities, (ii) Distressed Community Financing Activities, and (iii) Service Activities.

Within each category, Applicants that are certified CDFIs will be ranked first according to the ratio of the actual award amount calculated by the CDFI

Fund for the category to the total assets of the Applicant, followed by Applicants that are not certified CDFIs according to the ratio of the actual award amount calculated by the CDFI Fund for the category to the total assets of the Applicant.

The CDFI Fund, in its sole discretion: (i) May adjust the estimated award amount that an Applicant may receive; (ii) may establish a maximum amount that may be awarded to an Applicant; and (iii) reserves the right to limit the amount of an award to any Applicant if the CDFI Fund deems it appropriate.

For purposes of calculating award disbursement amounts, the CDFI Fund will treat Qualified Activities with a total principal amount less than or equal to $250,000 as fully disbursed. For all other Qualified Activities, Awardees will have 12 months from the end of the Assessment Period to make disbursements and 18 months from the end of the Assessment Period to submit to the CDFI Fund disbursement requests for the corresponding portion of their awards, after which the CDFI Fund will rescind and deobligate any outstanding award balance and said outstanding award balance will no longer be available to the Awardee.

The CDFI Fund reserves the right to change its eligibility and evaluation criteria and procedures. If said changes materially affect the CDFI Fund's award decisions, the CDFI Fund will provide information regarding the changes through the CDFI Fund's Web site.

There is no right to appeal the CDFI Fund's award decisions. The CDFI Fund's award decisions are final. The CDFI Fund does not provide debriefings and will only respond to questions regarding an Award decision 30 days prior to the end of the applicable fiscal year.

VIII. Award Administration Information

A. *Notice of Award:* The CDFI Fund will signify its selection of an Applicant as an Awardee by delivering a Notice of Award and Award Agreement to the Applicant. The Notice of Award and Award Agreement will contain the general terms and conditions underlying the CDFI Fund's provision of an award. The Applicant must execute the Notice of Award and Award Agreement and return it to the CDFI Fund. Each Awardee must also provide the CDFI Fund with complete and accurate banking information on the Automated Clearinghouse (ACH) form. The ACH form must be returned with the Notice of Award and Award Agreement.

The CDFI Fund reserves the right, in its sole discretion, to rescind its award, the Notice of Award and Award Agreement if the Awardee fails to return the Notice of Award and Award Agreement signed by the Authorized Representative of the Awardee or any other requested documentation by the deadline set by the CDFI Fund.

By executing a Notice of Award and Award Agreement, the Awardee agrees that, if information (including administrative errors) comes to the attention of the CDFI Fund prior to the Effective Date of the Award Agreement, that either adversely affects the Awardee's eligibility for an award, or adversely affects the CDFI Fund's evaluation of the Awardee's application, or indicates fraud or mismanagement on the part of the Awardee, the CDFI Fund may, in its discretion and without advance notice to the Awardee, terminate the Notice of Award and Award Agreement or take such other actions as it deems appropriate.

1. *Failure to meet reporting requirements:* If an Applicant, or its Affiliate, is a prior CDFI Fund awardee or allocatee under any CDFI Fund program and is not current on the reporting requirements set forth in the previously executed assistance, award or allocation agreement(s), as of the date of the Notice of Award, the CDFI Fund reserves the right, in its sole discretion, to delay entering into an Award Agreement and/or to delay making a disbursement of Award proceeds, until said prior awardee or allocatee is current on the reporting requirements in the previously executed assistance, award or allocation agreement(s). Please note that the CDFI Fund only acknowledges the receipt of reports that are complete. As such, incomplete reports or reports that are deficient of required elements will not be recognized as having been received. If said prior awardee or allocatee is unable to meet this requirement within the timeframe set by the CDFI Fund, the CDFI Fund reserves the right, in its sole discretion, to terminate and rescind the Notice of Award and the Award made under this NOFA.

2. *Pending resolution of noncompliance:* If an Applicant is a prior CDFI Fund awardee or allocatee under any CDFI Fund program and if: (a) It has submitted complete and timely reports to the CDFI Fund that demonstrate noncompliance with a previous assistance, award, or allocation agreement, and (b) the CDFI Fund has yet to make a final determination regarding whether or not the entity is in default of its previous assistance, award, or allocation agreement, the CDFI Fund reserves the right, in its sole discretion, to delay entering into an Award Agreement and/or to delay making a disbursement of Award proceeds, pending full resolution, in the sole determination of the CDFI Fund, of the noncompliance. Further, if an Affiliate of the Applicant is a prior CDFI Fund awardee or allocatee under any CDFI Fund program, and if such entity: (i) Has submitted complete and timely reports to the CDFI Fund that demonstrate noncompliance with a previous assistance, award, or allocation agreement, and (ii) the CDFI Fund has yet to make a final determination as to whether the entity is in default of its previous assistance, award, or allocation agreement, the CDFI Fund reserves the right, in its sole discretion, to delay entering into an Award Agreement and/or to delay making a disbursement of Award proceeds pending full resolution, in the sole determination of the CDFI Fund, of the noncompliance. If said prior awardee or allocatee is unable to meet this requirement, in the sole determination of the CDFI Fund, the CDFI Fund reserves the right, in its sole discretion, to terminate and rescind the Notice of Award and the Award made under this NOFA.

3. *Default status:* If, at any time prior to entering into an Award Agreement under this NOFA, the CDFI Fund has made a final determination that an Applicant that is a prior CDFI Fund awardee or allocatee under any CDFI Fund program is in default of a previously executed assistance, award, or allocation agreement(s) and has provided written notification of such determination to the Applicant, the CDFI Fund reserves the right, in its sole discretion, to delay entering into an Award Agreement and/or to delay making a disbursement of Award proceeds until said prior awardee or allocatee has submitted a complete and timely report demonstrating full compliance with said Agreement within a timeframe set by the CDFI Fund. Further, if, at any time prior to entering into an Award Agreement under this NOFA, the CDFI Fund has made a final determination that an Affiliate of the Applicant is a prior CDFI Fund awardee or allocatee under any CDFI Fund program, is in default of a previously executed assistance, allocation or award agreement(s), and has provided written notification of such determination to the defaulting entity, the CDFI Fund reserves the right, in its sole discretion, to delay entering into an Award Agreement and/or to delay making a disbursement of Award proceeds until said prior awardee or allocatee has submitted a complete and timely report demonstrating full compliance with said

agreement within a timeframe set by the CDFI Fund. If said prior awardee or allocatee is unable to meet this requirement, the CDFI Fund reserves the right, in its sole discretion, to terminate and rescind the Notice of Award and the Award made under this NOFA.

4. *Termination in default:* If, within the 12-month period prior to entering into an Award Agreement under this NOFA, the CDFI Fund has made a final determination that an Applicant that is a prior CDFI Fund awardee or allocatee under any CDFI Fund program whose award or allocation terminated in default of such prior agreement and the CDFI Fund has provided written notification of such determination to such organization, the CDFI Fund reserves the right, in its sole discretion, to delay entering into an Award Agreement and/or to delay making a disbursement of Award proceeds. Further, if, within the 12-month period prior to entering into an Award Agreement under this NOFA, the CDFI Fund has made a final determination that an Affiliate of the Applicant is a prior CDFI Fund awardee or allocatee under any CDFI Fund program, and whose award or allocation terminated in default of such prior agreement(s) and has provided written notification of such determination to the defaulting entity, the CDFI Fund reserves the right, in its sole discretion, to delay entering into an Award Agreement and/or to delay making a disbursement of Award proceeds.

B. *Award Agreement:* After the CDFI Fund selects an Awardee, unless an exception detailed in this Notice applies, the CDFI Fund and the Awardee will enter into an Award Agreement. The Award Agreement will set forth certain required terms and conditions of the award, which will include, but not be limited to: (i) The amount of the award; (ii) the type of the award; (iii) the approved uses of the award; (iv) performance goals and measures; and (v) reporting requirements for all Awardees. Award Agreements under this NOFA generally will have one-year performance periods. The Award Agreement shall provide that an Awardee shall: (i) Carry out its Qualified Activities in accordance with applicable law, the approved application, and all other applicable requirements; (ii) not receive any monies until the CDFI Fund has determined that the Awardee has fulfilled all applicable requirements, and (iii) use an amount equivalent to the BEA Award amount for BEA Qualified Activities.

C. *Administrative and National Policy Requirements:* Not applicable.

D. *Reporting and Accounting:*

1. *Reporting Requirements:* The CDFI Fund will collect information, on at least an annual basis, from each Awardee that receives an award over $50,000 through this NOFA, which may include, but not be limited to, an Annual Report that comprises the following components: (i) Institution Level Report; (ii) Financial Reports (including an OMB A–133 audit, as applicable); and (iii) such other information as the CDFI Fund may require. Each Awardee is responsible for the timely and complete submission of the Annual Report, even if all or a portion of the document(s) actually is completed by another entity or signatory to the Award Agreement. If such other entities or signatories are required to provide Institution Level Reports, Financial Reports, or other documentation that the CDFI Fund may require, the Awardee is responsible for ensuring that the information is submitted timely and complete. The CDFI Fund reserves the right to contact such additional signatories to the Award Agreement and require that additional information and documentation be provided. The CDFI Fund will use such information to monitor each Awardee's compliance with the requirements set forth in the Award Agreement and to assess the impact of the CDFI Program. All reports must be electronically submitted to the CDFI Fund via the Awardee's myCDFIFund account. The Institution Level Report must be submitted through the CDFI Fund's web-based data collection system, the Community Investment Impact System (CIIS). The Financial Report may be submitted through CIIS. All other components of the Annual Report may be submitted electronically, as directed, by the CDFI Fund. The CDFI Fund reserves the right, in its sole discretion, to modify these reporting requirements if it determines it to be appropriate and necessary; however, such reporting requirements will be modified only after notice to Awardees.

2. *Accounting:* The CDFI Fund will require each Awardee that receives an award over $50,000 through this NOFA to account for the use of the award. This will require Awardees to establish administrative and accounting controls, subject to applicable OMB Circulars. The CDFI Fund will provide guidance to Awardees outlining the format and content of the information to be provided on an annual basis, outlining and describing how the funds were used.

IX. Agency Contacts

The CDFI Fund will respond to questions and provide support concerning this NOFA and the funding application between the hours of 9 a.m. and 5 p.m. ET, starting on the date of the publication of this NOFA through close of business May 3, 2010 for the FY 2010 funding round. The CDFI Fund will not respond to questions or provide support concerning the application after 5 p.m. ET on May 3, 2010 for the FY 2010 funding round.

Applications and other information regarding the CDFI Fund and its programs may be downloaded and printed from the CDFI Fund's Web site at *http://www.cdfifund.gov.* The CDFI Fund will post on its Web site responses to questions of general applicability regarding the BEA Program.

A. *Information Technology Support:* Technical support can be obtained by calling (202) 622–2455 or by e-mail at *ithelpdesk@cdfi.treas.gov.* People who have visual or mobility impairments that prevent them from creating a Distressed Community map using the CDFI Fund's Web site should call (202) 622–2455 for assistance. These are not toll free numbers.

B. *Application Support:* If you have any questions about the programmatic or administrative requirements of this NOFA, contact the CDFI Fund's Program office by e-mail at *cdfihelp@cdfi.treas.gov,* by telephone at (202) 622–6355, by facsimile at (202) 622–7754, or by mail at CDFI Fund, 601 13th Street, NW., Suite 200 South, Washington, DC 20005. The number provided is not toll-free.

C. *Certification, Compliance, Monitoring and Evaluation Support:* If you have any questions regarding the compliance requirements of this NOFA, including questions regarding performance on prior awards, contact the CDFI Fund's Compliance Manager by e-mail at *cme@cdfi.treas.gov,* by telephone at (202) 622–6330, by facsimile at (202) 622–6453, or by mail at CDFI Fund, 601 13th Street, NW., Suite 200 South, Washington, DC 20005. The number provided is not toll-free.

D. *Communication with the CDFI Fund:* The CDFI Fund will use its myCDFIFund Internet interface to communicate with Applicants and Awardees under this NOFA. Awardees must use myCDFIFund to submit required reports. The CDFI Fund will notify Awardees by e-mail using the addresses maintained in each Awardee's myCDFIFund account. Therefore, an Awardee and any Subsidiaries, signatories, and Affiliates must maintain accurate contact information (including

contact person and authorized representative, e-mail addresses, fax numbers, phone numbers, and office addresses) in their myCDFIFund account(s). For more information about myCDFIFund, please see the Help documents posted at *https://www.cdfifund.gov/myCDFI/Help/Help.asp.*

Authority: 12 U.S.C. 1834a, 4703, 4703 note, 4713; 12 CFR part 1806.

Dated: March 22, 2010.

Donna J. Gambrell,

Director, Community Development Financial Institutions Fund.

[FR Doc. 2010–6738 Filed 3–25–10; 8:45 am]

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Part II

Environmental Protection Agency

40 CFR Part 80

Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 80

[EPA–HQ–OAR–2005–0161; FRL–9112–3]

RIN 2060–A081

Regulation of Fuels and Fuel Additives: Changes to Renewable Fuel Standard Program

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: Under the Clean Air Act Section 211(o), as amended by the Energy Independence and Security Act of 2007 (EISA), the Environmental Protection Agency is required to promulgate regulations implementing changes to the Renewable Fuel Standard program. The revised statutory requirements specify the volumes of cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel that must be used in transportation fuel. This action finalizes the regulations that implement the requirements of EISA, including the cellulosic, biomass-based diesel, advanced biofuel, and renewable fuel standards that will apply to all gasoline and diesel produced or imported in 2010. The final regulations make a number of changes to the current Renewable Fuel Standard program while retaining many elements of the compliance and trading system already in place. This final rule also implements the revised statutory definitions and criteria, most notably the new greenhouse gas emission thresholds for renewable fuels and new limits on renewable biomass feedstocks. This rulemaking marks the first time that greenhouse gas emission performance is being applied in a regulatory context for a nationwide program. As mandated by the statute, our greenhouse gas emission assessments consider the full lifecycle emission impacts of fuel production from both direct and indirect emissions, including significant emissions from land use changes. In carrying out our lifecycle analysis we have taken steps to ensure that the lifecycle estimates are based on the latest and most up-to-date science. The lifecycle greenhouse gas assessments reflected in this rulemaking represent significant improvements in analysis based on information and data received since the proposal. However, we also recognize that lifecycle GHG assessment of biofuels is an evolving discipline and will continue to revisit our lifecycle analyses in the future as new information becomes available. EPA plans to ask the National Academy of Sciences for assistance as we move forward. Based on current analyses we have determined that ethanol from corn starch will be able to comply with the required greenhouse gas (GHG) threshold for renewable fuel. Similarly, biodiesel can be produced to comply with the 50% threshold for biomass-based diesel, sugarcane with the 50% threshold for advanced biofuel and multiple cellulosic-based fuels with their 60% threshold. Additional fuel pathways have also been determined to comply with their thresholds. The assessment for this rulemaking also indicates the increased use of renewable fuels will have important environmental, energy and economic impacts for our Nation.

DATES: This final rule is effective on July 1, 2010, and the percentage standards apply to all gasoline and diesel produced or imported in 2010. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of July 1, 2010.

ADDRESSES: EPA has established a docket for this action under Docket ID No. EPA–HQ–OAR–2005–0161. All documents in the docket are listed in the *http://www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, *e.g.,* confidential business information (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 *http://www.regulations.gov* or in hard copy at the Air and Radiation Docket and Information Center, 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: Julia MacAllister, Office of Transportation and Air Quality, Assessment and Standards Division, Environmental Protection Agency, 2000 Traverwood Drive, Ann Arbor, MI 48105; *Telephone number:* 734–214–4131; *Fax number:* 734–214–4816; *E-mail address: macallister.julia@epa.gov,* or Assessment and Standards Division Hotline; telephone number (734) 214–4636; E-mail address *asdinfo@epa.gov.*

SUPPLEMENTARY INFORMATION:

General Information

I. Does This Final Rule Apply to Me?

Entities potentially affected by this final rule are those involved with the production, distribution, and sale of transportation fuels, including gasoline and diesel fuel or renewable fuels such as ethanol and biodiesel. Regulated categories include:

Category	NAICS [1] codes	SIC [2] codes	Examples of potentially regulated entities
Industry	324110	2911	Petroleum Refineries.
Industry	325193	2869	Ethyl alcohol manufacturing.
Industry	325199	2869	Other basic organic chemical manufacturing.
Industry	424690	5169	Chemical and allied products merchant wholesalers.
Industry	424710	5171	Petroleum bulk stations and terminals.
Industry	424720	5172	Petroleum and petroleum products merchant wholesalers.
Industry	454319	5989	Other fuel dealers

[1] North American Industry Classification System (NAICS)
[2] Standard Industrial Classification (SIC) system code.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this final action. This table lists the types of entities that EPA is now aware could potentially be regulated by this final action. Other types of entities not listed in the table could also be regulated. To determine whether your activities would be regulated by this final action, you should carefully examine the applicability criteria in 40 CFR part 80. If you have any questions regarding the applicability of this final action to a

particular entity, consult the person listed in the preceding section.

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XII. Statutory Provisions and Legal Authority

I. Executive Summary

Through this final rule, the U.S. Environmental Protection Agency is revising the National Renewable Fuel Standard program to implement the requirements of the Energy Independence and Security Act of 2007 (EISA). EISA made significant changes to both the structure and the magnitude of the renewable fuel program created by the Energy Policy Act of 2005 (EPAct). The EISA fuel program, hereafter referred to as RFS2, mandates the use of 36 billion gallons of renewable fuel by 2022—a nearly five-fold increase over the highest volume specified by EPAct. EISA also established four separate categories of renewable fuels, each with a separate volume mandate and each with a specific lifecycle greenhouse gas emission threshold. The categories are renewable fuel, advanced biofuel, biomass-based diesel, and cellulosic biofuel. There is a notable increase in the mandate for cellulosic biofuels in particular. EISA increased the cellulosic biofuel mandate to 16 billion gallons by 2022, representing the bulk of the increase in the renewable fuels mandate.

EPA's proposed rule sought comment on a multitude of issues, ranging from how to interpret the new definitions for renewable biomass to the Agency's proposed methodology for conducting the greenhouse gas lifecycle assessments required by EISA. The decisions presented in this final rule are heavily informed by the many public comments we received on the proposed rule. In addition, and as with the proposal, we sought input from a wide variety of stakeholders. The Agency has had multiple meetings and discussions with renewable fuel producers, technology companies, petroleum refiners and importers, agricultural associations, lifecycle experts, environmental groups, vehicle manufacturers, states, gasoline and petroleum marketers, pipeline owners and fuel terminal operators. We also have worked closely with other Federal agencies and in particular with the Departments of Energy and Agriculture.

This section provides an executive summary of the final RFS2 program requirements that EPA is implementing as a result of EISA. The RFS2 program will replace the RFS1 program promulgated on May 1, 2007 (72 FR 23900).[1] Details of the final requirements can be found in Sections II and III, with certain lifecycle aspects detailed in Section V.

This section also provides a summary of EPA's assessment of the environmental and economic impacts of the use of higher renewable fuel volumes. Details of these analyses can be found in Sections IV through IX and in the Regulatory Impact Analysis (RIA).

[1] To meet the requirements of EPAct, EPA had previously adopted a limited program that applied only to calendar year 2006. The RFS1 program refers to the general program adopted in the May 2007 rulemaking.

A. Summary of New Provisions of the RFS Program

Today's notice establishes new regulatory requirements for the RFS program that will be implemented through a new subpart M to 40 CFR part 80. EPA is maintaining several elements of the RFS1 program such as regulations governing the generation, transfer, and use of Renewable Identification Numbers (RINs). At the same time, we are making a number of updates to reflect the changes brought about by EISA

1. Required Volumes of Renewable Fuel

The RFS program is intended to require a minimum volume of renewable fuel to be used each year in the transportation sector. In response to EPAct 2005, under RFS1 the required volume was 4.0 billion gallons in 2006, ramping up to 7.5 billion gallons by 2012. Starting in 2013, the program also required that the total volume of renewable fuel contain at least 250 million gallons of fuel derived from cellulosic biomass.

In response to EISA, today's action makes four primary changes to the volume requirements of the RFS program. First, it substantially increases the required volumes and extends the timeframe over which the volumes ramp up through at least 2022. Second, it divides the total renewable fuel requirement into four separate categories, each with its own volume requirement. Third, it requires, with certain exceptions applicable to existing facilities, that each of these mandated volumes of renewable fuels achieve certain minimum thresholds of GHG emission performance. Fourth, it requires that all renewable fuel be made from feedstocks that meet the new definition of renewable biomass including certain land use restrictions. The volume requirements in EISA are shown in Table I.A.1–1.

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Table I.A.1-1

Renewable Fuel Volume Requirements for RFS2 (billion gallons)

	Cellulosic biofuel requirement	Biomass-based diesel requirement	Advanced biofuel requirement	Total renewable fuel requirement
2009	n/a	0.5	0.6	11.1
2010	0.1	0.65	0.95	12.95
2011	0.25	0.80	1.35	13.95
2012	0.5	1.0	2.0	15.2
2013	1.0	a	2.75	16.55
2014	1.75	a	3.75	18.15
2015	3.0	a	5.5	20.5
2016	4.25	a	7.25	22.25
2017	5.5	a	9.0	24.0
2018	7.0	a	11.0	26.0
2019	8.5	a	13.0	28.0
2020	10.5	a	15.0	30.0
2021	13.5	a	18.0	33.0
2022	16.0	a	21.0	36.0
2023+	b	b	B	b

[a] To be determined by EPA through a future rulemaking, but no less than 1.0 billion gallons.

[b] To be determined by EPA through a future rulemaking.

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As shown in the table, the volume requirements are not exclusive, and generally result in nested requirements. Any renewable fuel that meets the requirement for cellulosic biofuel or biomass-based diesel is also valid for meeting the advanced biofuel requirement. Likewise, any renewable fuel that meets the requirement for advanced biofuel is also valid for meeting the total renewable fuel requirement. *See* Section V.C for further discussion of which specific types of fuel may qualify for the four categories shown in Table I.A.1–1.

2. Standards for 2010 and Effective Date for New Requirements

While EISA established the renewable fuel volumes shown in Table I.A.1–1, it also requires that the Administrator set the standards based on these volumes each November for the following year based in part on information provided from the Energy Information Agency (EIA). In the case of the cellulosic biofuel standard, section 211(o)(7)(D) of EISA specifically requires that the standard be set based on the volume projected to be available during the following year. If the volume is lower than the level shown in Table I.A.1–1, then EISA allows the Administrator to also lower the advanced biofuel and total renewable fuel standards each year accordingly. Given the implications of these standards and the necessary judgment that can't be reduced to a formula akin to the RFS1 regulations, we believe it is appropriate to set the standards through a notice-and-comment rulemaking process. Thus, for future standards, we intend to issue an NPRM by summer and a final rule by November 30 of each year in order to determine the appropriate standards applicable in the following year. However, in the case of the 2010 standards, we are finalizing them as part of today's action.

a. 2010 Standards

While we proposed that the cellulosic biofuel standard would be set at the EISA-specified level of 100 million gallons for 2010, based on analysis of information available at this time, we no longer believe the full volume can be met. Since the proposal, we have had detailed discussions with over 30 companies that are in the business of developing cellulosic biofuels and cellulosic biofuel technology. Based on these discussions, we have found that many of the projects that served as the basis for the proposal have been put on hold, delayed, or scaled back. At the same time, there have been a number of additional projects that have developed and are moving forward. As discussed in Section IV.B.3, the timing for many of the projects indicates that while few will be able to provide commercial volumes for 2010, an increasing number will come on line in 2011, 2012, and 2013. The success of these projects is then expected to accelerate growth of the cellulosic biofuel industry out into the future. EIA provided us with a projection on October 29, 2009 of 5.04 million gallons (6.5 million ethanol-equivalent gallons) of cellulosic biofuel production for 2010. While our company-by-company assessment varies from EIA's, as described in Section IV.B.3., and actual cellulosic production volume during 2010 will be a function of developments over the course of 2010, we nevertheless believe that 5 million gallons (6.5 million ethanol equivalent) represents a reasonable, yet achievable level for the cellulosic standard for 2010. While this is lower than the level specified in EISA, no change to the advanced biofuel and total renewable fuel standards is warranted. With the inclusion of an energy-based Equivalence Value for biodiesel and renewable diesel, 2010 compliance with the biomass-based diesel standard will be more than enough to ensure compliance with the advanced biofuel standard for 2010.

Today's rule also includes special provisions to account for the 2009 biomass-based diesel volume requirements in EISA. As described in the NPRM, in November 2008 we used the new total renewable fuel volume of 11.1 billion gallons from EISA as the basis for the 2009 total renewable fuel standard that we issued under the RFS1 regulations.[2] While this approach ensured that the total mandated renewable fuel volume required by EISA for 2009 was used, the RFS1 regulatory structure did not provide a mechanism for implementing the 0.5 billion gallon requirement for biomass-based diesel nor the 0.6 billion gallon requirement for advanced biofuel. As we proposed, and as is described in more detail in Section II.E.2, we are addressing this issue in today's rule by combining the 2010 biomass-based diesel requirement of 0.65 billion gallons with the 2009 biomass based diesel requirement of 0.5 billion gallons to require that obligated parties meet a combined 2009/2010 requirement of 1.15 billion gallons by the end of the 2010 compliance year. No similar provisions are required in order to fulfill the 2009 advanced biofuel volume mandate.

The resulting 2010 standards are shown in Table I.A.2–1. These standards represent the fraction of a refiner's or importer's gasoline and diesel volume which must be renewable fuel. Additional discussion of the 2010 standards can be found in Section II.E.1.b.

TABLE I.A.2–1—STANDARDS FOR 2010

Cellulosic biofuel	0.004%
Biomass-based diesel	1.10%
Advanced biofuel	0.61%
Renewable fuel	8.25%

b. Effective Date

Under CAA section 211(o) as modified by EISA, EPA is required to revise the RFS1 regulations within one year of enactment, or December 19, 2008. Promulgation by this date would have been consistent with the revised volume requirements shown in Table I.A.1–1 that begin in 2009 for certain categories of renewable fuel. As described in the NPRM, we were not able to promulgate final RFS2 program requirements by December 19, 2008.

Under today's rule, the transition from using the RFS1 regulatory provisions regarding registration, RIN generation, reporting, and recordkeeping to using comparable provisions in this RFS2 rule will occur on July 1, 2010. This is the start of the 1st quarter following completion of the statutorily required 60-day Congressional Review period for such a rulemaking as this. This will provide adequate lead time for all parties to transition to the new regulatory requirements, including additional time to prepare for RFS2 implementation for those entities who may find it helpful, especially those covered by the RFS program for the first time. In addition, making the transition at the end of the quarter will help simplify the recordkeeping and reporting transition to RFS2. To facilitate the volume obligations being based on the full year's gasoline and diesel production, and to enable the smooth transition from the RFS1 to RFS2 regulatory provisions, Renewable Identification Numbers (RINs—which are used in the program for both credit trading and for compliance demonstration) that were generated under the RFS1 regulations will continue to be valid for compliance with the RFS2 obligations. Further discussion of transition issues can be found in Sections II.A and II.G.4, respectively.

According to EISA, the renewable fuel obligations applicable under RFS2 apply on a calendar basis. That is, obligated parties must determine their

[2] 73 FR 70643, November 21, 2008

renewable volume obligations (RVOs) at the end of a calendar year based on the volume of gasoline or diesel fuel they produce during the year, and they must demonstrate compliance with their RVOs in an annual report that is due two months after the end of the calendar year.

For 2010, today's rule will follow this same general approach. The four RFS2 RVOs for each obligated party will be calculated on the basis of all gasoline and diesel produced or imported on and after January 1, 2010, through December 31, 2010. Obligated parties will be required to demonstrate by February 28 of 2011 that they obtained sufficient RINs to satisfy their 2010 RVOs. We believe this is an appropriate approach as it is more consistent with Congress' provisions in EISA for 2010, and there is adequate lead time for the obligated parties to achieve compliance.

The issue for EPA to resolve is how to apply the four volume mandates under EISA for calendar year 2010. These volume mandates are translated into applicable percentages that obligated parties then use to determine their renewable fuel volume obligations based on the gasoline and diesel they produce or import in 2010. There are three basic approaches that EPA has considered, based on comments on the proposal. The first is the approach adopted in this rule—the four RFS2 applicable percentages are determined based on the four volume mandates covered by this rule, and the renewable volume obligation for a refiner or importer will be determined by applying these percentages to the volume of gasoline and diesel fuel they produce during calendar year 2010. Under this approach, there is no separate applicable percentage under RFS1 for 2010, however RINs generated in 2009 and 2010 under RFS1 can be used to meet the four volume obligations for 2010 under the RFS2 regulations. Another option, which was considered and rejected by EPA, is much more complicated—(1) determine an RFS1 applicable percentage based on just the total renewable fuel volume mandate, using the same total volume for renewable fuel as used in the first approach, and require obligated parties to apply that percentage to the gasoline produced from January 1, 2010 until the effective date of the RFS2 regulations, and (2) determine the four RFS2 applicable percentages as discussed above, but require obligated parties to apply them to only the gasoline and diesel in 2010 after the effective date of the RFS2 regulations. Of greater concern than its complexity, the second approach fails to ensure that the total volumes for three of the volume mandates are met for 2010. In effect EPA would be requiring that obligated parties use enough cellulosic biofuel, biomass-based diesel, and advanced biofuel to meet approximately 75% of the total volumes required for these fuels under EISA. While the total volume mandate under EISA for renewable fuel would likely be met, the other three volumes mandates would only be met in part. The final option would involve delaying the RFS2 requirements until January 1, 2011, which would avoid the complexity of the second approach, but would be even less consistent with EISA's requirements.

The approach adopted in this rule is clearly the most consistent with EISA's requirement of four different volume mandates for all of calendar year 2010. In addition, EPA is confident that obligated parties have adequate lead-time to comply with the four volume requirements under the approach adopted in this rule. The volume requirements are achieved by obtaining the appropriate number of RINs from producers of the renewable fuel. The obligated parties do not need lead time for construction or investment purposes, as they are not changing the way they produce gasoline or diesel, do not need to design to install new equipment, or take other actions that require longer lead time. Obtaining the appropriate amount of RINs involves contractual or other arrangements with renewable fuel producers or other holders of RINs. Obligated parties now have experience implementing RFS1, and the actions needed to comply under the RFS2 regulations are a continuation of these kinds of RFS1 activities. In addition, an adequate supply of RINs is expected to be available for compliance by obligated parties. RFS1 RINs have been produced throughout 2009 and continue to be produced since the beginning of 2010. There has been and will be no gap or lag in the production of RINS, as the RFS1 regulations continue in effect and require that renewable fuel producers generate RINs for the renewable fuel they produce. These 2009 and 2010 RFS1 RINs will be available and can be used towards the volume requirements of obligated parties for 2010. These RFS1 RINS combined with the RFS2 RINs that will be generated by renewable fuel producers are expected to provide an adequate supply of RINs to ensure compliance for all of the renewable volume mandates. For further discussion of the expected supply of renewable fuel, *see* section IV.

In addition, obligated parties have received adequate notice of this obligation. The proposed rule called for obligated parties to meet the full volume mandates for all four volume mandates, and to base their volume obligation on the volume of gasoline and diesel produced starting January 1, 2010. While the RFS2 regulations are not effective until after January 1, 2010, the same full year approach is being taken for the 2010 volumes of gasoline and diesel. Obligated parties have been on notice based on EPA's proposal, discussions with many stakeholders during the rulemaking, the issuance of the final rule itself, and publication of this rule in the **Federal Register**. As discussed above, there is adequate time for obligated parties to meet their 2010 volume obligations by the spring of 2011.

This approach does not impose any retroactive requirements. The obligation that is imposed under the RFS2 regulations is forward looking—by the spring of 2011, when compliance is determined, obligated parties must satisfy certain volume obligations. These future requirements are calculated in part based on volumes of gasoline and diesel produced prior to the effective date of the RFS2 regulations, but this does not make the RFS2 requirement retroactive in nature. The RFS2 regulations do not change in any way the legal obligations or requirements that apply prior to the effective date of the RFS2 regulations. Instead, the RFS2 requirements impose new requirements that must be met in the future. There is adequate lead time to comply with these RFS2 requirements, and they achieve a result that is more consistent with Congress' goals in establishing 4 volume mandates for calendar year 2010, and for these reasons EPA is adopting this approach for calendar year 2010.

Parties that intend to generate RINs, own and/or transfer them, or use them for compliance purposes after July 1, 2010 will need to register or re-register under the RFS2 provisions and modify their information technology (IT) systems to accommodate the changes we are finalizing today. As described more fully in Section II, these changes include redefining the D code within the RIN that identifies which standard a fuel qualifies for, adding a process for verifying that feedstocks meet the renewable biomass definition, and calculating compliance with four standards instead of one. EPA's registration system is available now for parties to complete the registration process. Further details on this process can be found elsewhere in today's preamble as well as at *http://www.epa.gov/otaq/regs/fuels/*

fuelsregistration.htm. Parties that produce motor vehicle, nonroad, locomotive, and marine (MVNRLM) diesel fuel but not gasoline will be newly obligated parties and may be establishing IT systems for the RFS program for the first time.

3. Analysis of Lifecycle Greenhouse Gas Emissions and Thresholds for Renewable Fuels

a. Background and Conclusions

A significant aspect of the RFS2 program is the requirement that the lifecycle GHG emissions of a qualifying renewable fuel must be less than the lifecycle GHG emissions of the 2005 baseline average gasoline or diesel fuel that it replaces; four different levels of reductions are required for the four different renewable fuel standards. These lifecycle performance improvement thresholds are listed in Table I.A.3–1. Compliance with each threshold requires a comprehensive evaluation of renewable fuels, as well as the baseline for gasoline and diesel, on the basis of their lifecycle emissions. As mandated by EISA, the greenhouse gas emissions assessments must evaluate the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions form land use changes) related to the full lifecycle, including all stages of fuel and feedstock production, distribution and use by the ultimate consumer.

TABLE I.A.3–1—LIFECYCLE GHG THRESHOLDS SPECIFIED IN EISA

[Percent Reduction from Baseline]

Renewable fuel [a]	20
Advanced biofuel	50
Biomass-based diesel	50
Cellulosic biofuel	60

[a] The 20% criterion generally applies to renewable fuel from new facilities that commenced construction after December 19, 2007.

It is important to recognize that fuel from the existing capacity of current facilities and the capacity of all new facilities that commenced construction prior to December 19, 2007 (and in some cases prior to December 31, 2009) are exempt, or grandfathered, from the 20% lifecycle requirement for the Renewable Fuel category. Therefore, EPA has in the discussion below emphasized its analysis on those plants and fuels that are likely to be used for compliance with the rule and would be subject to the lifecycle thresholds. Based on the analyses and approach described in Section V of this preamble, EPA is determining that ethanol produced from corn starch at a new facility (or expanded capacity from an existing) using natural gas, biomass or biogas for process energy and using advanced efficient technologies that we expect will be most typical of new production facilities will meet the 20% GHG emission reduction threshold compared to the 2005 baseline gasoline. We are also determining that biobutanol from corn starch meets the 20% threshold. Similarly, EPA is making the determination that biodiesel and renewable diesel from soy oil or waste oils, fats and greases will exceed the 50% GHG threshold for biomass-based diesel compared to the 2005 petroleum diesel baseline. In addition, we have now modeled biodiesel and renewable diesel produced from algal oils as complying with the 50% threshold for biomass-based diesel. EPA is also determining that ethanol from sugarcane complies with the applicable 50% GHG reduction threshold for advanced biofuels. The modeled pathways (feedstock and production technology) for cellulosic ethanol and cellulosic diesel would also comply with the 60% GHG reduction threshold applicable to cellulosic biofuels. As discussed later in section V, there are also other fuels and fuel pathways that we are determining will comply with the GHG thresholds.

Under EISA, EPA is allowed to adjust the GHG reduction thresholds downward by up to 10% if necessary based on lifecycle GHG assessment of biofuels likely to be available. Based on the results summarized above, we are not finalizing any adjustments to the lifecycle GHG thresholds for the four renewable fuel standard categories.

EPA recognizes that as the state of scientific knowledge continues to evolve in this area, the lifecycle GHG assessments for a variety of fuel pathways are likely to be updated. Therefore, while EPA is using its current lifecycle assessments to inform the regulatory determinations for fuel pathways in this final rule, as required by the statute, the Agency is also committing to further reassess these determinations and lifecycle estimates. As part of this ongoing effort, we will ask for the expert advice of the National Academy of Sciences, as well as other experts, and incorporate their advice and any updated information we receive into a new assessment of the lifecycle GHG emissions performance of the biofuels being evaluated in this final rule. EPA will request that the National Academy of Sciences evaluate the approach taken in this rule, the underlying science of lifecycle assessment, and in particular indirect land use change, and make recommendations for subsequent lifecycle GHG assessments on this subject. At this time we are estimating this review by the National Academy of Sciences may take up to two years. As specified by EISA, if EPA revises the analytical methodology for determining lifecycle greenhouse gas emissions, any such revision will apply to renewable fuel from new facilities that commence construction after the effective date of the revision.

b. Fuel Pathways Considered and Key Model Updates Since the Proposal

EPA is making the GHG threshold determination based on a methodology that includes an analysis of the full lifecycle, including significant emissions related to international land-use change. As described in more detail below and in Section V of this preamble, EPA has used the best available models for this purpose, and has incorporated many modifications to its proposed approach based on comments from the public and peer reviewers and developing science. EPA has also quantified the uncertainty associated with significant components of its analyses, including important factors affecting GHG emissions associated with international land use change. As discussed below, EPA has updated and refined its modeling approach since proposal in several important ways, and EPA is confident that its modeling of GHG emissions associated with international land use is comprehensive and provides a reasonable and scientifically robust basis for making the threshold determinations described above. As discussed below, EPA plans to continue to improve upon its analyses, and will update it in the future as appropriate.

Through technical outreach, the peer review process, and the public comment period, EPA received and reviewed a significant amount of data, studies, and information on our proposed lifecycle analysis approach. We incorporated a number of new, updated, and peer-reviewed data sources in our final rulemaking analysis including better satellite data for tracking land use changes and improved assessments of N2O impacts from agriculture. The new and updated data sources are discussed further in this section, and in more detail in Section V.

We also performed dozens of new modeling runs, uncertainty analyses, and sensitivity analyses which are leading to greater confidence in our results. We have updated our analyses in conjunction with, and based on, advice from experts from government,

academia, industry, and not for profit institutions.

The new studies, data, and analysis performed for the final rulemaking impacted the lifecycle GHG results for biofuels in a number of different ways. In some cases, updates caused the modeled analysis of lifecycle GHG emissions from biofuels to increase, while other updates caused the modeled emissions to be reduced. Overall, the revisions since our proposed rule have led to a reduction in modeled lifecycle GHG emissions as compared to the values in the proposal. The following highlights the most significant revisions. Section V details all of the changes made and their relative impacts on the results.

Corn Ethanol: The final rule analysis found less overall indirect land use change (less land needed), thereby improving the lifecycle GHG performance of corn ethanol. The main reasons for this decrease are:

- Based on new studies that show the rate of improvement in crop yields as a function of price, crop yields are now modeled to increase in response to higher crop prices. When higher crop yields are used in the models, less land is needed domestically and globally for crops as biofuels expand.
- New research available since the proposal indicates that the corn ethanol production co-product, distillers grains and solubles (DGS), is more efficient as an animal feed (meaning less corn is needed for animal feed) than we had assumed in the proposal. Therefore, in our analyses for the final rule, domestic corn exports are not impacted as much by increased biofuel production as they were in the proposal analysis.
- Improved satellite data allowed us to more finely assess the types of land converted when international land use changes occur, and this more precise assessment led to a lowering of modeled GHG impacts. Based on previous satellite data, the proposal assumed cropland expansion onto grassland would require an amount of pasture to be replaced through deforestation. For the final rulemaking analysis we incorporated improved economic modeling of demand for pasture area and satellite data which indicates that pasture is also likely to expand onto existing grasslands. This reduced the GHG emissions associated with an amount of land use change.

However, we note that not all modeling updates necessarily reduced predicted GHG emissions from land use change. As one example, since the proposal a new version of the GREET model (Version 1.8C) has been released. EPA reviewed the new version and concluded that this was an improvement over the previous GREET release that was used in the proposal analysis (Version 1.8B). Therefore, EPA updated the GHG emission factors for fertilizer production used in our analysis to the values from the new GREET version. This had the result of slightly increasing the GHG emissions associated with fertilizer production and thus slightly increasing the GHG emission impacts of domestic agriculture.

For the final rule, EPA has analyzed a variety of corn ethanol pathways including ethanol made from corn starch using natural gas, coal, and biomass as process energy sources in production facilities utilizing both dry mill and wet mill processes. For corn starch ethanol, we also considered the technology enhancements likely to occur in the future such as the addition of corn oil fractionation or extraction technology, membrane separation technology, combined heat and power and raw starch hydrolysis.

Biobutanol from corn starch: In addition to ethanol from corn starch, for this final rule, we have also analyzed bio-butanol from corn starch. Since the feedstock impacts are the same as for ethanol from corn starch, the assessment for biobutanol reflects the differing impacts due to the production process and energy content of biobutanol compared to that of ethanol.

Soybean Biodiesel: The new information described above for corn ethanol also leads to lower modeled GHG impacts associated with soybean biodiesel. The revised assessment predicts less overall indirect land use change (less land needed) and less impact from the land use changed that does occur (due to updates in types of converted land assumed). In addition, the latest IPCC guidance indicates reduced domestic soybean N2O emissions, and updated USDA and industry data show reductions in biodiesel processing energy use and a higher co-product credit, all of which further reduced the modeled soybean biodiesel lifecycle GHG emissions. This has resulted in a significant improvement in our assessment of the lifecycle performance of soybean biodiesel as compared to the estimate in the proposal.

Biodiesel and Renewable Diesel from Algal Oil and Waste Fats and Greases: In addition to biodiesel from soy oil, biodiesel and renewable diesel from algal oil (should it reach commercial production) and biodiesel from waste oils, fats and greases have been modeled. These feedstock sources have little or no land use impact so the GHG impacts associate with their use in biofuel production are largely the result of energy required to produce the feedstock (in the case of algal oil) and the energy required to turn that feedstock into a biofuel.

Sugarcane Ethanol: Sugarcane ethanol was analyzed considering a range of technologies and assuming alternative pathways for dehydrating the ethanol prior to its use as a biofuel in the U.S. For the final rule, our analysis also shows less overall indirect land use change (less land needed) associated with sugarcane ethanol production. For the proposal, we assumed sugarcane expansion in Brazil would result in cropland expansion into grassland and lost pasture being replaced through deforestation. Based on newly available regional specific data from Brazil, historic trends, and higher resolution satellite data, in the final rule, sugarcane expansion onto grassland is coupled with greater pasture intensification, such that there is less projected impact on forests. Furthermore, new data provided by commenters showed reduced sugarcane ethanol process energy, which also reduced the estimated lifecycle GHG impact of sugarcane ethanol production.

Cellulosic Ethanol: We analyzed cellulosic ethanol production using both biochemical (enzymatic) and thermo-chemical processes with corn stover, switchgrass, and forestry thinnings and waste as feedstocks. For cellulosic diesel, we analyzed production using the Fischer-Tropsch process. For the final rule, we updated the cellulosic ethanol conversion rates based on new data provided by the National Renewable Energy Laboratory (NREL.) As a result of this update, the gallons per ton yields for switchgrass and several other feedstock sources increased in our analysis for the final rule, while the predicted yields from corn residue and several other feedstock sources decreased slightly from the NPRM values. In addition, we also updated our feedstock production yields based on new work conducted by the Pacific Northwest National Laboratory (PNNL). This analysis increased the tons per acre yields for several dedicated energy crops. These updates increased the amount of cellulosic ethanol projected to come from energy crops. While the increase in crop yields and conversion efficiency reduced the GHG emissions associated with cellulosic ethanol, there remains an increased demand for land to grow dedicated energy crops; this land use impact resulted in increased GHG emissions with the net result varying by the type of cellulosic feedstock source.

We note that several of the renewable fuel pathways modeled are still in early stages of development or commercialization and are likely to continue to develop as the industry moves toward commercial production. Therefore, it will be necessary to reanalyze several pathways using updated data and information as the technologies develop. For example, biofuel derived from algae is undergoing wide ranging development. Therefore for now, our algae analyses presume particular processes and energy requirements which will need to be reviewed and updated as this fuel source moves toward commercial production.

For this final rule we have incorporated a statistical analysis of uncertainty about critical variables in our pathway analysis. This uncertainty analysis is explained in detail in Section V and is consistent with the specific recommendations received through our peer review and public comments on the proposal. The uncertainty analysis focused on two aspects of indirect land use change—the types of land converted and the GHG emission associated with different types of land converted. In particular, our uncertainty analysis focused on such specific sources of information as the satellite imaging used to inform our assessment of land use trends and the specific changes in carbon storage expected from a change in land use in each geographic area of the world modeled. We have also performed additional sensitivity analyses including analysis of two yield scenarios for corn and soy beans to assess the impact of changes in yield assumptions.

This uncertainty analysis provides information on both the range of possible outcomes for the parameters analyzed, an estimate of the degree of confidence that the actual result will be within a particular range (in our case, we estimated a 95% confidence interval) and an estimate of the central tendency or midpoint of the GHG performance estimate.

In the proposal, we considered several options for the timeframe over which to measure lifecycle GHG impacts and the possibility of discounting those impacts. Based on peer review recommendations and other comments received, EPA is finalizing its assessments based on an analysis assuming 30 years of continued emission impacts after the program is fully phased in by 2022 and without discounting those impacts.

EPA also notes that it received significant comment on our proposed baseline lifecycle greenhouse gas assessment of gasoline and diesel ("petroleum baseline"). While EPA has made several updates to the petroleum analysis in response to comments (see Section V for further discussion), we are finalizing the approach based on our interpretation of the definition in the Act as requiring that the petroleum baseline represent an average of the gasoline and diesel fuel (whichever is being replaced by the renewable fuel) sold as transportation fuel in 2005.

As discussed in more detail later, the modeling results developed for purposes of the final rule provide a rich and comprehensive base of information for making the threshold determinations. There are numerous modeling runs, reflecting updated inputs to the model, sensitivity analyses, and uncertainty analyses. The results for different scenarios include a range and a best estimate or mid-point. Given the potentially conservative nature of the base crop yield assumption, EPA believes the actual crop yield in 2022 may be above the base yield; however we are not in a position to characterize how much above it might be. To the extent actual yields are higher, the base yield modeling results would underestimate to some degree the actual GHG emissions reductions compared to the baseline.

In making the threshold determinations for this rule, EPA weighed all of the evidence available to it, while placing the greatest weight on the best estimate value for the base yield scenario. In those cases where the best estimate for the base yield scenario exceeds the reduction threshold, EPA judges that there is a good basis to be confident that the threshold will be achieved and is determining that the bio-fuel pathway complies with the applicable threshold. To the extent the midpoint of the scenarios analyzed lies further above a threshold for a particular biofuel pathway, we have increasingly greater confidence that the biofuel exceeds the threshold.

EPA recognizes that certain commenters suggest that there is a very high degree of uncertainty associated in particular with determining international indirect land use changes and their emissions impacts, and because of this EPA should exclude any calculation of international indirect land use changes in its lifecycle analysis. Commenters say EPA should make the threshold determinations based solely on modeling of other sources of lifecycle emissions. In effect, commenters argue that the uncertainty of the modeling associated with international indirect land use change means we should use our modeling results but exclude that part of the results associated with international land use change.

For the reasons discussed above and in more detail in Section V, EPA rejects the view that the modeling relied upon in the final rule, which includes emissions associated with international indirect land use change, is too uncertain to provide a credible and reasonable scientific basis for determining whether the aggregate lifecycle emissions exceed the thresholds. In addition, as discussed elsewhere, the definition of lifecycle emissions includes significant indirect emissions associated with land use change. In deciding whether a bio-fuel pathway meets the threshold, EPA has to consider what it knows about all aspects of the lifecycle emissions, and decide whether there is a valid basis to find that the aggregate lifecycle emissions of the fuel, taking into account significant indirect emissions from land use change meets the threshold. Based on the analyses conducted for this rule, EPA has determined international indirect land use impacts are significant and therefore must be included in threshold compliance assessment.

If the international land use impacts were so uncertain that their impact on lifecycle GHG emissions could not be adequately determined, as claimed by commenters, this does not mean EPA could assume the international land use change emissions are zero, as commenters suggest. High uncertainty would not mean that emissions are small and can be ignored; rather it could mean that we could not tell whether they are large or small. If high uncertainty meant that EPA were not able to determine that indirect emissions from international land use change are small enough that the total lifecycle emissions meet the threshold, then that fuel could not be determined to meet the GHG thresholds of EISA and the fuel would necessarily have to be excluded from the program.

In any case, that is not the situation here as EPA rejects commenters' suggestion and does not agree that the uncertainty over the indirect emissions from land use change is too high to make a reasoned threshold determination. Therefore biofuels with a significant international land use impact are included within this program.

c. Consideration of Fuel Pathways Not Yet Modeled

Not all biofuel pathways have been directly modeled for this rule. For example, while we have modeled cellulosic biofuel produced from corn

stover, we have not modeled the specific GHG impact of cellulosic biofuel produced from other crop residues such as wheat straw or rice straw. Today, in addition to finalizing a threshold compliance determination for those pathways we specifically modeled, in some cases, our technical judgment indicates other pathways are likely to be similar enough to modeled pathways that we are also assured these similar pathways qualify. These pathways include fuels produced from the same feedstock and using the same production process but produced in countries other than those modeled. The agricultural sector modeling used for our lifecycle analysis does not predict any soybean biodiesel or corn ethanol will be imported into the U.S., or any imported sugarcane ethanol from production in countries other than Brazil. However, these rules do not prohibit the use in the U.S. of these fuels produced in countries not modeled if they are also expected to comply with the eligibility requirements including meeting the thresholds for GHG performance. Although the GHG emissions of producing these fuels from feedstock grown or biofuel produced in other countries has not been specifically modeled, we do not anticipate their use would impact our conclusions regarding these feedstock pathways. The emissions of producing these fuels in other countries could be slightly higher or lower than what was modeled depending on a number of factors. Our analyses indicate that crop yields for the crops in other countries where these fuels are also most likely to be produced are similar or lower than U.S. values indicating the same or slightly higher GHG impacts. Agricultural sector inputs for the crops in these other countries are roughly the same or lower than the U.S. pointing toward the same or slightly lower GHG impacts. If crop production were to expand due to biofuels in the countries where the models predict these biofuels might additionally be produced would tend to lower our assessment of international indirect impacts but could increase our assessment of the domestic (*i.e.,* the country of origin) land use impacts. EPA believes, because of these offsetting factors along with the small amounts of fuel potentially coming from other countries, that incorporating fuels produced in other countries will not impact our threshold analysis. Therefore, fuels of the same fuel type, produced from the same feedstock using the same fuel production technology as modeled fuel pathways will be assessed the same GHG performance decisions regardless of country of origin. These pathways also include fuels that might be produced from similar feedstock sources to those already modeled and which are expected to have less or no indirect land use change. In such cases, we believe that in order to compete economically in the renewable fuel marketplace such pathways are likely to be at least as energy efficient as those modeled and thus have comparable lifecycle GHG performance. Based on these considerations, we are extending the lifecycle results for the fuel pathways already modeled to 5 broader categories of feedstocks. This extension of lifecycle modeling results is discussed further in Section V.C.

We have established five categories of biofuel feedstock sources under which modeled feedstock sources and feedstock sources similar to those modeled are grouped and qualify on the basis of our existing modeling. These are:

1. Crop residues such as corn stover, wheat straw, rice straw, citrus residue.
2. Forest material including eligible forest thinnings and solid residue remaining from forest product production.
3. Annual cover crops planted on existing crop land such as winter cover crops.
4. Separated food and yard waste including biogenic waste from food processing.
5. Perennial grasses including switchgrass and miscanthus.

The full set of pathways for which we have been able to make a compliance decision are described in Section V.

Threshold determinations for certain other pathways were not possible at this time because sufficient modeling or data is not yet available. In some of these cases, we recognize that a renewable fuel is already being produced from an alternative feedstock. Although we have the data needed for analysis, we did not have sufficient time to complete the necessary lifecycle GHG impact assessment for this final rule. We will model and evaluate additional pathways after this final rule on the basis of current or likely commercial production in the near-term and the status of current analysis at EPA. EPA anticipates modeling grain sorghum ethanol, woody pulp ethanol, and palm oil biodiesel after this final rule and including the determinations in a rulemaking within 6 months. Our analyses project that they will be used in meeting the RFS2 volume standard in the near-term. During the course of the NPRM comment period, EPA received detailed information on these pathways and is currently in the process of analyzing these pathways. We have received comments on several additional feedstock/fuel pathways, including rapeseed/canola, camelina, sweet sorghum, wheat, and mustard seed, and we welcome parties to utilize the petition process described in Section V.C to request EPA to examine additional pathways.

We anticipate there could be additional cases where we currently do not have information on which to base a lifecycle GHG assessment perhaps because we are not yet aware of potential unique plant configurations or operations that could result in greater efficiencies than assumed in our analysis. In many cases, such alternative pathways could have been explicitly modeled as a reasonably straightforward extension of pathways we have modeled if the necessary information had been available. For example, while we have modeled specific enhancements to corn starch ethanol production such as membrane separation or corn oil extraction, there are likely other additional energy saving or co-product pathways available or under development by the industry. It is reasonable to also consider these alternative energy saving or co-product pathways based upon their technical merits. Other current or emerging pathways may require new analysis and modeling for EPA to fully evaluate compliance. For example, fuel pathways with feedstocks or fuel types not yet modeled by EPA may require additional modeling and, it follows, public comment before a determination of compliance can be made.

Therefore, for those fuel pathways that are different than those pathways EPA has listed in today's regulations, EPA is establishing a petition process whereby a party can petition the Agency to consider new pathways for GHG reduction threshold compliance. As described in Section V.C, the petition process is meant for parties with serious intention to move forward with production via the petitioned fuel pathway and who have moved sufficiently forward in the business process to show feasibility of the fuel pathway's implementation. In addition, if the petition addresses a fuel pathway that already has been determined to qualify as one or more types of renewable fuel under RFS (*e.g.,* renewable fuel, or advanced biofuel), the pathway must have the potential to result in qualifying for a renewable fuel type for which it was not previously qualified. Thus, for example, the Agency will not undertake any additional review for a party wishing to get a modified LCA value for a

previously approved fuel pathway if the desired new value would not change the overall pathway classification.

The petition must contain all the necessary information on the fuel pathway to allow EPA to effectively assess the lifecycle performance of the new fuel pathway. See Section V.C for a full description. EPA will use the data supplied via the petition and other pertinent data available to the Agency to evaluate whether the information for that fuel pathway, combined with information developed in this rulemaking for other fuel pathways that have been determined to exceed the threshold, is sufficient to allow EPA to evaluate the pathway for a determination of compliance. We expect such a determination would be pathway specific. For some fuel pathways with unique modifications or enhancements to production technologies in pathways otherwise modeled for the regulations listed today, EPA may be able to evaluate the pathway as a reasonably straight-forward extension of our current assessments. In such cases, we would expect to make a decision for that specific pathway without conducting a full rulemaking process. We would expect to evaluate whether the pathway is consistent with the definitions of renewable fuel types in the regulations, generally without going through rulemaking, and issue an approval or disapproval that applies to the petitioner. We anticipate that we will subsequently propose to add the pathway to the regulations. Other current or emerging fuel pathways may require significant new analysis and/or modeling for EPA to conduct an adequate evaluation for a compliance determination (*e.g.,* feedstocks or fuel types not yet included in EPA's assessments for this regulation). For these pathways, EPA would give notice and seek public comment on a compliance determination under the annual rulemaking process established in today's regulations. If we make a technical determination of compliance, then we anticipate the fuel producer will be able to generate RINs for fuel produced under the additional pathway following the next available quarterly update of the EPA Moderated Transaction System (EMTS). EPA will process those petitions as expeditiously as possible for those pathways which are closer to the commercial production stage than others. In all events, parties are expected to begin this process with ample lead time as compared to their commercial start dates. Further discussion of this petition process can be found in Section V.C.

We note again that the continued work of EPA and others is expected to result in improved models and data sources, and that re-analysis based on such updated information could revise these determinations. Any such reassessment that would impact compliance would necessarily go through rulemaking and would only be applicable to production from future facilities after the revised rule was finalized, as required by EISA.

4. Compliance With Renewable Biomass Provision

EISA changed the definition of "renewable fuel" to require that it be made from feedstocks that qualify as "renewable biomass." EISA's definition of the term "renewable biomass" limits the types of biomass as well as the types of land from which the biomass may be harvested. The definition includes:

- Planted crops and crop residue from agricultural land cleared prior to December 19, 2007 and actively managed or fallow on that date.
- Planted trees and tree residue from tree plantations cleared prior to December 19, 2007 and actively managed on that date.
- Animal waste material and byproducts.
- Slash and pre-commercial thinnings from non-federal forestlands that are neither old-growth nor listed as critically imperiled or rare by a State Natural Heritage program.
- Biomass cleared from the vicinity of buildings and other areas at risk of wildfire.
- Algae.
- Separated yard waste and food waste.

In today's rule, EPA is finalizing definitions for the many terms included within the definition of renewable biomass. Where possible, EPA has adhered to existing statutory, regulatory or industry definitions for these terms, although in some cases we have altered definitions to conform to EISA's statutory language, to further the goals of EISA, or for ease of program implementation. For example, EPA is defining "agricultural land" from which crops and crop residue can be harvested for RIN-generating renewable fuel production as including cropland, pastureland, and land enrolled in the Conservation Reserve Program. An in-depth discussion of the renewable biomass definitions can be found in Section II.B.4.

In keeping with EISA, under today's final rule, renewable fuel producers may only generate RINs for fuels made from feedstocks meeting the definition of renewable biomass. In order to implement this requirement, we are finalizing three potential mechanisms for domestic and foreign renewable fuel producers to verify that their feedstocks comply with this requirement. The first involves renewable biomass recordkeeping and reporting requirements by renewable fuel producers for their individual facilities. As an alternative to these individual recordkeeping and reporting requirements, the second allows renewable fuel producers to form a consortium to fund an independent third-party to conduct an annual renewable biomass quality-assurance survey, based on a plan approved by EPA. The third is an aggregate compliance approach applicable only to crops and crop residue from the U.S. It utilizes USDA's publicly available agricultural land data as the basis for an EPA determination of compliance with the renewable biomass requirements for these particular feedstocks. This determination will be reviewed annually, and if EPA finds it is no longer warranted, then renewable fuel producers using domestically grown crops and crop residue will be required to conduct individual or consortium-based verification processes to ensure that their feedstocks qualify as renewable biomass. These final provisions are described below, with a more in-depth discussion in Section II.B.4.

For renewable fuel producers using feedstocks other than planted crops or crop residue from agricultural land that do not choose to participate in the third-party survey funded by an industry consortium, the final renewable biomass recordkeeping and reporting provisions require that individual producers obtain documentation about their feedstocks from their feedstock supplier(s) and take the measures necessary to ensure that they know the source of their feedstocks and can demonstrate to EPA that they have complied with the EISA definition of renewable biomass. Specifically, EPA's renewable biomass reporting requirements for producers who generate RINs include a certification on renewable fuel production reports that the feedstock used for each renewable fuel batch meets the definition of renewable biomass. Additionally, producers will be required to include with their quarterly reports a summary of the types and volumes of feedstocks used throughout the quarter, as well as maps of the land from which the feedstocks used in the quarter were harvested. EPA's final renewable biomass recordkeeping provisions require renewable fuel producers to

maintain sufficient records to support their claims that their feedstocks meet the definition of renewable biomass, including maps or electronic data identifying the boundaries of the land where the feedstocks were produced, documents tracing the feedstocks from the land to the renewable fuel production facility, other written records from their feedstock suppliers that serve as evidence that the feedstock qualifies as renewable biomass, and for producers using planted trees or tree residue from tree plantations, written records that serve as evidence that the land from which the feedstocks were obtained was cleared prior to December 19, 2007 and actively managed on that date.

Based on USDA's publicly available agricultural land data, EPA is able to establish a baseline of the aggregate amount of U.S. agricultural land (meaning cropland, pastureland and CRP land in the United States) that is available for the production of crops and crop residues for use in renewable fuel production consistent with the definition of renewable biomass. EPA has determined that, in the aggregate this amount of agricultural land (land cleared or cultivated prior to EISA's enactment (December 19, 2007) and actively managed or fallow, and nonforested on that date) is expected to, at least in the near term, be sufficient to support EISA renewable fuel obligations and other foreseeable demands for crop products, without clearing and cultivating additional land. EPA also believes that economic factors will lead farmers to use the "agricultural land" available for crop production under EISA rather than bring new land into crop production. As a result, EPA is deeming renewable fuel producers using domestically-grown crops and crop residue as feedstock to be in compliance with the renewable biomass requirements, and those producers need not comply with the recordkeeping and quarterly reporting requirements as established for the non-crop-based biomass sector. However, EPA will annually review USDA data on lands in agricultural production to determine if these conclusions remain valid. If EPA determines that the 2007 baseline amount of eligible agricultural land has been exceeded, EPA will publish a notice of that finding in the **Federal Register**. At that point, renewable fuel producers using planted crops or crop residue from agricultural lands would be subject to the same recordkeeping and reporting requirements as other renewable fuel producers.

5. EPA-Moderated Transaction System

We introduced the EPA Moderated Transaction System (EMTS) in the NPRM as a new method for managing the generation of RINs and transactions involving RINs. EMTS is designed to resolve the RIN management issues of RFS1 that lead to widespread RIN errors, many times resulting in invalid RINs and often tedious remedial procedures to resolve those errors. It is also designed to address the added RIN categories, more complex RIN generation requirements, and additional volume of RINs associated with RFS2. Commenters broadly support EMTS and most stated that its use should coincide with the start of RFS2; however, many commenters expressed concerns over having sufficient time to implement the new system. In today's action, we are requiring the use of EMTS for all RFS2 RIN generations and transactions beginning July 1, 2010. EPA has utilized an open process for the development of EMTS since it was first introduced in the NPRM, conducting workshops and webinars, and soliciting stakeholder participation in its evaluation and testing. EPA pledges to work with the regulated community, as a group and individually, to ensure EMTS is successfully implemented. EPA anticipates that with this level of assistance, regulated parties will not experience significant difficulties in transitioning to the new system, and EPA believes that the many benefits of the new system warrant its immediate use.

6. Other Changes to the RFS Program

Today's final rule also makes a number of other changes to the RFS program that are described in more detail in Sections II and III below, including:

- *Grandfathering provisions:* Renewable fuel from existing facilities is exempt from the lifecycle GHG emission reduction threshold of 20% up to a baseline volume for that facility that will be established at the time of registration. As discussed in Section II.B.3, the exemption from the 20% GHG threshold applies only to renewable fuel that is produced from facilities which commenced construction on or before December 19, 2007, or in the case of ethanol plants that use natural gas or biodiesel for process heat, on or before December 31, 2009.
- *Renewable fuels produced from municipal solid waste (MSW):* The new renewable biomass definition in EISA modified the ability for MSW-derived fuels to qualify under the RFS program by restricting it to "separated yard waste or food waste." We are finalizing provisions that would allow certain portions of MSW to be included as renewable biomass, provided that reasonable separation has first occurred.
- *Equivalence Values:* We are generally maintaining the provisions from RFS1 that the Equivalence Value for each renewable fuel will be based on its energy content in comparison to ethanol, adjusted for renewable content. The cellulosic biofuel, advanced biofuel, and renewable fuel standards can be met with ethanol-equivalent volumes of renewable fuel. However, since the biomass-based diesel standard is a "diesel" standard, its volume must be met on a biodiesel-equivalent energy basis.
- *Cellulosic biofuel waiver credits:* If EPA reduces the required volume of cellulosic biofuel according to the waiver provisions in EISA, EPA will offer a number of credits to obligated parties no greater than the reduced cellulosic biofuel standard. These waiver credits are not allowed to be traded or banked for future use, and are only allowed to be used to meet the cellulosic biofuel standard for the year that they are offered. In response to concerns expressed in comments on the proposal, we are implementing certain restrictions on the use of these waiver credits. For example, unlike Cellulosic Biofuel RINs, waiver credits may not be used to meet either the advanced biofuel standard or the total renewable fuel standard. For the 2010 compliance period, since the cellulosic standard is lower than the level otherwise required by EISA, we are making cellulosic waiver credits available to obligated parties for end-of-year compliance should they need them at a price of $1.56 per gallon-RIN.
- *Obligated fuels:* EISA expanded the program to cover "transportation fuel", not just gasoline. Therefore, under RFS2, obligated fuel volumes will include all gasoline and all MVNRLM diesel fuel. Other fuels such as jet fuel and fuel intended for use in ocean-going vessels are not obligated fuels under RFS2. However, renewable fuels used in jet fuel or heating oil are valid for meeting the renewable fuel volume mandates. Similarly, while we are not including natural gas, propane, or electricity used in transportation as obligated fuels at this time, we will allow renewable forms of these fuels to qualify under the program for generating RINs.

B. Impacts of Increasing Volume Requirements in the RFS2 Program

The displacement of gasoline and diesel with renewable fuels has a wide

range of environmental and economic impacts. As we describe in Sections IV–IX, we have assessed many of these impacts for the final rule. It is difficult to ascertain how much of these impacts might be due to the natural growth in renewable fuel use due to market forces as crude oil prices rise versus what might be forced by the RFS2 standards. Regardless, these assessments provide important information on the wider public policy considerations related to renewable fuel production and use, climate change, and national energy security. Where possible, we have tried to provide two perspectives on the impacts of the renewable fuel volumes mandated in EISA—both relative to the RFS1 mandated volumes, and relative to a projection from EIA (AEO 2007) of renewable fuel volumes that would have been expected without EISA.

Based on the results of our analyses, when fully phased in by 2022, the increased volume of renewable fuel required by this final rule in comparison to the AEO 2007 forecast would result in 138 million metric tons fewer CO_2-equivalent GHG emissions (annual average over 30 years), the equivalent of removing 27 million vehicles from the road today.

At the same time, increases in emissions of hydrocarbons, nitrogen oxides, particulate matter, and other pollutants are projected to lead to increases in population-weighted annual average ambient PM and ozone concentrations, which in turn are anticipated to lead to up to 245 cases of adult premature mortality. The air quality impacts, however, are highly variable from region to region. Ambient $PM_{2.5}$ is likely to increase in areas associated with biofuel production and transport and decrease in other areas; for ozone, many areas of the country will experience increases and a few areas will see decreases. Ethanol concentrations will increase substantially; for the other modeled air toxics there are some localized impacts, but relatively little impact on national average concentrations. We note that the air quality modeling results presented in this final rule do not constitute the "anti-backsliding" analysis required by Clean Air Act section 211(v). EPA will be analyzing air quality impacts of increased renewable fuel use through that study and will promulgate appropriate mitigation measures under section 211(v), separate from this final action.

In addition to air quality, there are also expected to be adverse impacts on both water quality and quantity as the production of biofuels and their feedstocks increase.

In addition to environmental impacts, the increased volumes of renewable fuels required by this final rule are also projected to have a number of other energy and economic impacts. The increased renewable fuel use is estimated to reduce dependence on foreign sources of crude oil, increase domestic sources of energy, and diversify our energy portfolio to help in moving beyond a petroleum-based economy. The increased use of renewable fuels is also expected to have the added benefit of providing an expanded market for agricultural products such as corn and soybeans and open new markets for the development of cellulosic feedstock industries and conversion technologies. Overall, however, we estimate that the renewable fuel standards will result in significant net benefits, ranging between $16 and $29 billion in 2022.

Table I.B–1 summarizes the results of our impacts analyses of the volumes of renewable fuels required by the RFS2 standards in 2022 relative to the AEO2007 reference case and identifies the section where you can find further explanation of it. As we work to implement the requirements of EISA, we will continue to assess these impacts. These are the annual impacts projected in 2022 when the program is fully phased in. Impacts in earlier years would differ but in most cases were not able to be modeled or assessed for this final rule.

TABLE I.B–1—IMPACT SUMMARY OF THE RFS2 STANDARDS IN 2022 RELATIVE TO THE AEO2007 REFERENCE CASE (2007 DOLLARS)

Category	Impact in 2022	Section discussed
Emissions and Air Quality		
GHG Emissions	−138 million metric tons	V.D.
Non-GHG Emissions (criteria and toxic pollutants)	−1% to +10% depending on the pollutant	VI.A.
Nationwide Ozone	+0.12 ppb population-weighted seasonal max 8 hr average	VIII.D.
Nationwide $PM_{2.5}$	+0.002 μg/m³ population-weighted annual average $PM_{2.5}$	VIII.D.
Nationwide Ethanol	+0.409 μg/m³ population-weighted annual average	VI.D.
Other Nationwide Air Toxics	−0.0001 to −0.023 μg/m³ population-weighted annual average depending on the pollutant.	VI.D.
$PM_{2.5}$-related Premature Mortality	33 to 85 additional cases of adult mortality (estimates vary by study)	VIII.D.
Ozone-related Premature Mortality	36 to 160 additional cases of adult mortality (estimates vary by study)	VIII.D.
Other Environmental Impacts		
Loadings to the Mississippi River from the Upper Mississippi River Basin.	Nitrogen: +1,430 million lbs. (1.2%) Phosphorus: +132 million lbs. (0.7%)	IX.
Fuel Costs		
Gasoline Costs	−2.4¢/gal	VII.D.
Diesel Costs	−12.1 ¢/gal	VII.D.
Overall Fuel Cost	−$11.8 Billion	VII.D.
Gasoline and Diesel Consumption	−13.6 Bgal	VII.C.
Food Costs		
Corn	+8.2%	VIII.A.
Soybeans	+10.3%	VIII.A.

TABLE I.B–1—IMPACT SUMMARY OF THE RFS2 STANDARDS IN 2022 RELATIVE TO THE AEO2007 REFERENCE CASE (2007 DOLLARS)—Continued

Category	Impact in 2022	Section discussed
Food	+$10 per capita	VIII.A.
Economic Impacts		
Energy Security	+$2.6 Billion	VIII.B.
Monetized Health Impacts	−$0.63 to −$2.2 Billion	VIII.D.
GHG Impacts (SCC) [a]	+$0.6 to $12.2 Billion (estimates vary by SCC assumption)	VIII.C.
Oil Imports	−$41.5 Billion	VIII.B
Farm Gate Food	+$3.6 Billion	VIII.A.
Farm Income	+$13 Billion (+36%)	VIII.A.
Corn Exports	−$57 Million (−8%)	VIII.A.
Soybean Exports	−$453 Million (−14%)	VIII.A.
Total Net Benefits [b]	+$13 to $26 Billion (estimates vary by SCC assumption)	VIII.F.

[a] The models used to estimate SCC values have not been exercised in a systematic manner that would allow researchers to assess the probability of different values. Therefore, the interim SCC values should not be considered to form a range or distribution of possible or likely values. *See* Section VIII.D for a complete summary of the interim SCC values.
[b] Sum of Overall Fuel Costs, Energy Security, Monetized Health Impacts, and GHG Impacts (SCC).

II. Description of the Regulatory Provisions

While EISA made a number of changes to CAA section 211(o) that must be reflected in the RFS program regulations, it left many of the basic program elements intact, including the mechanism for translating national renewable fuel volume requirements into applicable standards for individual obligated parties, requirements for a credit trading program, geographic applicability, treatment of small refineries, and general waiver provisions. As a result, many of the regulatory requirements of the RFS1 program will remain largely or, in some cases, entirely unchanged. These provisions include the distribution of RINs, separation of RINs, use of RINs to demonstrate compliance, provisions for exporters, recordkeeping and reporting, deficit carryovers, and the valid life of RINs.

The primary elements of the RFS program that we are changing to implement the requirements in EISA fall primarily into the following seven areas:

(1) Expansion of the applicable volumes of renewable fuel.

(2) Separation of the volume requirements into four separate categories of renewable fuel, with corresponding changes to the RIN and to the applicable standards.

(3) New definitions of renewable fuel, advanced biofuel, biomass-based diesel, and cellulosic biofuel.

(4) New requirement that renewable fuels meet certain lifecycle emission reduction thresholds.

(5) New definition of renewable biomass from which renewable fuels can be made, including certain land use restrictions.

(6) Expansion of the types of fuels that are subject to the standards to include diesel.

(7) Inclusion of specific types of waivers for different categories of renewable fuels and, in certain circumstances, EPA-generated credits for cellulosic biofuel.

EISA does not change the basic requirement under CAA 211(o) that the RFS program include a credit trading program. In the May 1, 2007 final rulemaking implementing the RFS1 program, we described how we reviewed a variety of approaches to program design in collaboration with various stakeholders. We finally settled on a RIN-based system for compliance and credit purposes as the one which met our goals of being straightforward, maximizing flexibility, ensuring that volumes are verifiable, and maintaining the existing system of fuel distribution and blending. RINs represent the basic framework for ensuring that the statutorily required volumes of renewable fuel are used as transportation fuel in the U.S. Since the RIN-based system generally has been successful in meeting the statutory goals, we are maintaining much of its structure under RFS2.

This section describes the regulatory changes we are finalizing to implement the new EISA provisions. Section III describes other changes to the RFS program that we considered or are finalizing, including an EPA-moderated RIN trading system that provides a context within which all RIN transfers will occur.

A. Renewable Identification Numbers (RINs)

Under RFS2, each RIN will continue to represent one gallon of renewable fuel in the context of demonstrating compliance with Renewable Volume Obligations (RVO), consistent with our approach under RFS1, and the RIN will continue to have unique information similar to the 38 digits in RFS1. However in the EPA Moderated Transaction System (EMTS), RIN detail information will be available but generally hidden during transactions. In general the codes within the RIN will have the same meaning under RFS2 as they do under RFS1, with the exception of the D code which will be expanded to cover the four categories of renewable fuel defined in EISA.

As described in Section I.A.2, the RFS2 regulatory program will go into effect on July 1, 2010, but the 2010 percentage standards issued as part of today's rule will apply to all gasoline and diesel produced or imported on or after January 1, 2010. As a result, some 2010 RINs will be generated under the RFS1 requirements and others will be generated under the RFS2 requirements, but all RINs generated in 2010 will be valid for meeting the 2010 annual standards. Since RFS1 RINs and RFS2 RINs will differ in the meaning of the D codes, we are implementing a mechanism for distinguishing between these two categories of RINs in order to appropriately apply them to the standards. In short, we are requiring the use of D codes under RFS2 that do not overlap the values for the D codes under RFS1. Table II.A–1 describes the D code definitions we are finalizing in today's action.

TABLE II.A–1—FINAL D CODE DEFINITIONS

D value	Meaning under RFS1	Meaning under RFS2
1	Cellulosic biomass ethanol	Not applicable.
2	Any renewable fuel that is not cellulosic biomass ethanol	Not applicable.
3	Not applicable	Cellulosic biofuel.
4	Not applicable	Biomass-based diesel.
5	Not applicable	Advanced biofuel.
6	Not applicable	Renewable fuel.
7	Not applicable	Cellulosic diesel.

Under this approach, D code values of 1 and 2 are only relevant for RINs generated under RFS1, and D code values of 3, 4, 5, 6, and 7 are only relevant for RINs generated under RFS2. As described in Section I.A.2, the RFS1 regulations will apply in January through June of 2010, while the RFS2 regulations will become effective on July 1, 2010. RINs generated under RFS1 regulations in the first three months of 2010 can be used for meeting the four 2010 standards applicable under RFS2. To accomplish this, these RFS1 RINs will be subject to the RFS1/RFS2 transition provisions wherein they will be deemed equivalent to one of the four RFS2 RIN categories using their RR and/or D codes. *See* Section II.G.4 for further description of how RFS1 RINs will be used to meet standards under RFS2. The determination of which D code will be assigned to a given batch of renewable fuel is described in more detail in Section II.D.2 below.

Table II.A–1 includes one D code corresponding to each of the four renewable fuel categories defined in EISA, and an additional D code of 7 corresponding to the unique, additional type of renewable fuel called cellulosic diesel. As described in the NPRM, a diesel fuel product produced from cellulosic feedstocks that meets the 60% GHG threshold could qualify as either cellulosic biofuel or biomass-based diesel. The NPRM described two possible approaches to this unique category of renewable fuel:

1. Have the producer of the cellulosic diesel designate their fuel up front as either cellulosic biofuel with a D code of 3, or biomass-based diesel with a D code of 4, limiting the subsequent potential in the marketplace for the RIN to be used for just one standard or the other.

2. Have the producer of the cellulosic diesel designate their fuel with a new cellulosic D code of 7, allowing the subsequent use of the RIN in the marketplace interchangeably for either the cellulosic biofuel standard or the biomass-based diesel standard.

We are finalizing the second option. By creating an additional D code of 7 to represent cellulosic diesel RINs, we believe its value in the marketplace will be maximized as it will be priced according to the relative demand for cellulosic biofuel and biomass-based diesel RINs. For instance, if demand for cellulosic biofuel RINs is higher than demand for biomass-based diesel RINs, then cellulosic diesel RINs will be priced as if they are cellulosic biofuel RINs. Not only does this approach benefit producers, but it allows obligated parties the flexibility to apply a RIN with a D code of 7 to either their cellulosic biofuel RVO or their biomass-based diesel RVO, depending on the number of RINs they have acquired to meet these two obligations. It also helps the functionality of the RIN program by helping protect against the potential for artificial RIN shortages in the marketplace for one standard or the other even though sufficient qualifying fuel was produced.

Under RFS2, each batch-RIN generated will continue to uniquely identify not only a specific batch of renewable fuel, but also every gallon-RIN assigned to that batch. Thus the RIN will continue to be defined as follows:

RIN: KYYYYCCCCFFFFFBBBBBRRDSS SSSSSSEEEEEEEE

Where:

K = Code distinguishing assigned RINs from separated RINs
YYYY = Calendar year of production or import
CCCC = Company ID
FFFFF = Facility ID
BBBBB = Batch number
RR = Code identifying the Equivalence Value
D = Code identifying the renewable fuel category
SSSSSSSS = Start of RIN block
EEEEEEEE = End of RIN block

B. New Eligibility Requirements for Renewable Fuels

Aside from the higher volume requirements, most of the substantive changes that EISA makes to the RFS program affect the eligibility of renewable fuels in meeting one of the four volume requirements. Eligibility is determined based on the types of feedstocks that are used, the land that is used to grow feedstocks for renewable fuel production, the processes that are used to convert those feedstocks into fuel, and the lifecycle greenhouse gas (GHG) emissions that are emitted in comparison to the gasoline or diesel that the renewable fuel displaces. This section describes these eligibility criteria and how we are implementing them for the RFS2 program.

1. Changes in Renewable Fuel Definitions

Under the previous Renewable Fuel Standards (RFS1), renewable fuel was defined generally as "any motor vehicle fuel that is used to replace or reduce the quantity of fossil fuel present in a fuel mixture used to fuel a motor vehicle". The RFS1 definition included motor vehicle fuels produced from biomass material such as grain, starch, fats, greases, oils, and biogas. The definition specifically included cellulosic biomass ethanol, waste derived ethanol, and biodiesel, all of which were defined separately. (*See* 72 FR 23915).

The definitions of renewable fuels under today's rule (RFS2) are based on the new statutory definition in EISA. Like the previous rules, the definitions in RFS2 include a general definition of renewable fuel, but unlike RFS1, we are including a separate definition of "Renewable Biomass" which identifies the feedstocks from which renewable fuels may be made.

Another difference in the definitions of renewable fuel is that RFS2 contains three subcategories of renewable fuels: (1) Advanced Biofuel, (2) Cellulosic Biofuel and (3) Biomass-Based Diesel. Each must meet threshold levels of reduction of greenhouse gas emissions as discussed in Section II.B.2. The specific definitions and how they differ from RFS1 follow below.

a. Renewable Fuel

"Renewable Fuel" is defined as fuel produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in a transportation fuel. The definition of "Renewable Fuel" now refers to "transportation fuel" rather than referring to motor vehicle fuel.

"Transportation fuel" is also defined, and means fuel used in motor vehicles, motor vehicle engines, nonroad vehicles or nonroad engines (except for ocean going vessels). Also renewable fuel now includes heating fuel and jet fuel.

Given that the primary use of electricity, natural gas, and propane is not for fueling vehicles and engines, and the producer generally does not know how it will be used, we cannot require that producers or importers of these fuels generate RINs for all the volumes they produce as we do with other renewable fuels. However, we are allowing fuel producers, importers and end users to include electricity, natural gas, and propane made from renewable biomass as a RIN-generating renewable fuel in RFS only if they can identify the specific quantities of their product which are actually used as a transportation fuel,. This may be possible for some portion of renewable electricity and biogas since many of the affected vehicles and equipment are in centrally-fueled fleets supplied under contract by a particular producer or importer of natural gas or propane. A producer or importer of renewable electricity or biogas who documents the use of his product in a vehicle or engine through a contractual pathway would be allowed to generate RINs to represent that product, if it met the definition of renewable fuel. (This is also discussed in Section II.D.2.a)

b. Advanced Biofuel

"Advanced Biofuel" is a renewable fuel other than ethanol derived from corn starch and for which lifecycle GHG emissions are at least 50% less than the gasoline or diesel fuel it displaces. Advanced biofuel would be assigned a D code of 5 as shown in Table II.A–1.

While "Advanced Biofuel" specifically excludes ethanol derived from corn starch, it includes other types of ethanol derived from renewable biomass, including ethanol made from cellulose, hemicellulose, lignin, sugar or any starch other than corn starch, as long as it meets the 50% GHG emission reduction threshold. Thus, even if corn starch-derived ethanol were made so that it met the 50% GHG reduction threshold, it will still be excluded from being defined as an advanced biofuel. Such ethanol while not an advanced biofuel will still qualify as a renewable fuel for purposes of meeting the standards.

c. Cellulosic Biofuel

Cellulosic biofuel is renewable fuel derived from any cellulose, hemicellulose, or lignin each of which must originate from renewable biomass. It must also achieve a lifecycle GHG emission reduction of at least 60%, compared to the gasoline or diesel fuel it displaces. Cellulosic biofuel is assigned a D code of 3 as shown in Table II.A–1. Cellulosic biofuel in general also qualifies as both "advanced biofuel" and "renewable fuel".

The definition of cellulosic biofuel for RFS2 is broader in some respects than the RFS1 definition of "cellulosic biomass ethanol". That definition included only ethanol, whereas the RFS2 definition of cellulosic biofuels includes any biomass-to-liquid fuel such as cellulosic gasoline or diesel in addition to ethanol. The definition of "cellulosic biofuel" in RFS2 differs from RFS1 in another significant way. The RFS1 definition provided that ethanol made at any facility—regardless of whether cellulosic feedstock is used or not—may be defined as cellulosic if at such facility "animal wastes or other waste materials are digested or otherwise used to displace 90% or more of the fossil fuel normally used in the production of ethanol." This provision was not included in EISA, and therefore does not appear in the definitions pertaining to cellulosic biofuel in the final rule.

d. Biomass-Based Diesel

"Biomass-based diesel" includes both biodiesel (mono-alkyl esters) and non-ester renewable diesel (including cellulosic diesel). The definition of biodiesel is the same very broad definition of "biodiesel" that was in EPAct and in RFS1, and thus, it includes any diesel fuel made from biomass feedstocks. However, EISA added three restrictions. First, EISA requires that such fuel be made from renewable biomass. Second, its lifecycle GHG emissions must be at least 50% less than the diesel fuel it displaces. Third, the statutory definition of "Biomass-based diesel" excludes renewable fuel derived from co-processing biomass with a petroleum feedstock. In our proposed rule, we sought comment on two options for how co-processing could be treated. The first option considered co-processing to occur only if both petroleum and biomass feedstock are processed in the same unit simultaneously. The second option considered co-processing to occur if renewable biomass and petroleum feedstock are processed in the same unit at any time; i.e., either simultaneously or sequentially. Under the second option, if petroleum feedstock was processed in the unit, then no fuel produced from such unit, even from a biomass feedstock, would be deemed to be biomass-based diesel.

We selected the first option to be used in the final rule. Under this approach, a batch of fuel qualifying for the D code of 4 that is produced in a processing unit in which only renewable biomass is the feedstock for such batch, will meet the definition of "Biomass-Based Diesel. Thus, serial batch processing in which 100% vegetable oil is processed one day/week/month and 100% petroleum the next day/week/month could occur without the activity being considered "co-processing." The resulting products could be blended together, but only the volume produced from vegetable oil will count as biomass-based diesel. We believe this is the most straightforward approach and an appropriate one, given that it would allow RINs to be generated for volumes of fuel meeting the 50% GHG reduction threshold that is derived from renewable biomass, while not providing any credit for fuel derived from petroleum sources. In addition, this approach avoids the need for potentially complex provisions addressing how fuel should be treated when existing or even mothballed petroleum hydrotreating equipment is retrofitted and placed into new service for renewable fuel production or vice versa.

Under today's rule, any fuel that does not satisfy the definition of biomass-based diesel only because it is co-processed with petroleum will still meet the definition of "Advanced Biofuel" provided it meets the 50% GHG threshold and other criteria for the D code of 5. Similarly it will meet the definition of renewable fuel if it meets a GHG emission reduction threshold of 20%. In neither case, however, will it meet the definition of biomass-based diesel.

This restriction is only really an issue for renewable diesel and biodiesel produced via the fatty acid methyl ester (FAME) process. For other forms of biodiesel, it is never made through any sort of co-processing with petroleum.[3] Producers of renewable diesel must therefore specify whether or not they use "co-processing" to produce the fuel in order to determine the correct D code for the RIN.

e. Additional Renewable Fuel

The statutory definition of "additional renewable fuel" specifies fuel produced

[3] The production of biodiesel (mono alkyl esters) does require the addition of methanol which is usually derived from natural gas, but which contributes a very small amount to the resulting product. We do not believe that this was intended by the statute's reference to "co-processing" which we believe was intended to address only renewable fats or oils co-processed with petroleum in a hydrotreater to produce renewable diesel.

from renewable biomass that is used to replace or reduce fossil fuels used in heating oil or jet fuel. EISA indicates that EPA may allow for the generation of credits for such additional renewable fuel that will be valid for compliance purposes. Under the RFS program, RINs operate in the role of credits, and RINs are generated when renewable fuel is produced rather than when it is blended. In most cases, however, renewable fuel producers do not know at the time of fuel production (and RIN generation) how their fuel will ultimately be used.

Under RFS1, only RINs assigned to renewable fuel that was blended into motor vehicle fuel (i.e., highway fuel) are valid for compliance purposes. We therefore created special provisions requiring that RINs be retired if they were assigned to renewable fuel that was ultimately blended into nonroad fuel. The new EISA provisions regarding additional renewable fuel make the RFS1 requirement for retiring RINs unnecessary if renewable fuel is blended into heating oil or jet fuel. As a result, we have modified the regulatory requirements to allow RINs assigned to renewable fuel blended into heating oil or jet fuel in addition to highway and nonroad transportation fuels to continue to be valid for compliance purposes. From a regulatory standpoint, there is no difference between renewable fuels used for transportation purposes, versus heating oil and jet fuels.

EISA uses the term "home heating oil" in the definition of "additional renewable fuel." The statute does not clarify whether the term should be interpreted to refer only to heating oil actually used in homes, or to all fuel of a type that can be used in homes. We note that the term "home heating oil" is typically used in industry in the latter manner, to refer to a type of fuel, rather than a particular use of it, and the term is typically used interchangeably in industry with heating oil, heating fuel, home heating fuel, and other terms depending on the region and market. We believe this broad interpretation based on typical industry usage best serves the goals and purposes of the statute. If EPA interpreted the term to apply only to heating oil actually used in homes, we would necessarily require tracking of individual gallons from production through ultimate use in use in homes in order to determine eligibility of the fuel for RINs. Given the fungible nature of the oil delivery market, this would likely be sufficiently difficult and potentially expensive so as to discourage the generation of RINs for renewable fuels used as home heating oil. This problem would be similar to that which arose under RFS1 for certain renewable fuels (in particular biodiesel) that were produced for the highway diesel market but were also suitable for other markets such as heating oil and non-road applications where it was unclear at the time of fuel production (when RINs are typically generated under the RFS program) whether the fuel would ultimately be eligible to generate RINs. Congress eliminated the complexity with regards to non-road applications in RFS2 by making all fuels used in both motor vehicle and nonroad applications subject to the renewable fuel standard program. We believe it best to interpret the Act so as to also avoid this type of complexity in the heating oil context. Thus, under today's regulations, RINs may be generated for renewable fuel used as "heating oil," as defined in existing EPA regulations at 80.2(ccc). In addition to simplifying implementation and administration of the Act, this interpretation will best realize the intent of EISA to reduce or replace the use of fossil fuels,

f. Cellulosic Diesel

In the proposed rule, we sought comment on how diesel made from cellulosic feedstocks should be considered. Specifically, a diesel fuel product produced from cellulosic feedstocks that meets the 60% GHG threshold could qualify as either cellulosic biofuel or biomass-based diesel. Based on comments received, and as discussed previously in Section II.A, today's rule requires the cellulosic diesel producer to categorize their product as cellulosic diesel with a D code of 7. It can then be traded in the marketplace and used for compliance with either the biomass-based diesel standard or the cellulosic biofuel standard.

2. Lifecycle GHG Thresholds

As part of the new definitions that EISA creates for cellulosic biofuel, biomass-based diesel, advanced biofuel, and renewable fuel, EISA also sets minimum performance measures or "thresholds" for lifecycle GHG emissions. These thresholds represent the percent reduction in lifecycle GHGs that is estimated to occur when a renewable fuel displaces gasoline or diesel fuel. Table II.B.2–1 lists the thresholds established by EISA.

TABLE II.B.2–1—LIFECYCLE GHG THRESHOLDS IN EISA

[Percent reduction from a 2005 gasoline or diesel baseline]

Renewable fuel	20%
Advanced biofuel	50%
Biomass-based diesel	50%
Cellulosic biofuel	60%

There are also special provisions for each of these thresholds:

Renewable fuel: The 20% threshold only applies to renewable fuel from new facilities that commenced construction after December 19, 2007, with an additional exemption from the 20% threshold for ethanol plants that commenced construction in 2008 or 2009 and are fired with natural gas, biomass, or any combination thereof. Facilities not subject to the 20% threshold are "grandfathered." *See* Section II.B.3 below for a complete discussion of grandfathering. Also, EPA can adjust the 20% threshold to as low as 10%, but the adjustment must be the minimum possible, and the resulting threshold must be established at the maximum achievable level based on natural gas fired corn-based ethanol plants.

Advanced biofuel and biomass-based diesel: The 50% threshold can be adjusted to as low as 40%, but the adjustment must be the minimum possible and result in the maximum achievable threshold taking cost into consideration. Also, such adjustments can be made only if it is determined that the 50% threshold is not commercially feasible for fuels made using a variety of feedstocks, technologies, and processes.

Cellulosic biofuel: Similarly to advanced biofuel and biomass-based diesel, the 60% threshold applicable to cellulosic biofuel can be adjusted to as low as 50%, but the adjustment must be the minimum possible and result in the maximum achievable threshold taking cost into consideration. Also, such adjustments can be made only if it is determined that the 60% threshold is not commercially feasible for fuels made using a variety of feedstocks, technologies, and processes.

Our analyses of lifecycle GHG emissions, discussed in detail in Section V, identified a range of fuel pathways that are capable of complying with the GHG performance thresholds for each of these separate fuel standards. Thus, we have determined that the GHG thresholds in Table II.B.2–1 should not be adjusted. Further discussion of this determination can be found in Section V.C.

3. Renewable Fuel Exempt From 20 Percent GHG Threshold

After considering comments received, the Agency has decided to implement the proposed option for interpreting the grandfathering provisions that provide an indefinite exemption from the 20 percent GHG threshold for renewable fuel facilities which have commenced construction prior to December 19, 2007. For these facilities, only the baseline volume of renewable fuel is exempted. For ethanol facilities which commenced construction after that date and which use natural gas, biofuels or a combination thereof, we proposed that such facilities would be "deemed compliant" with the 20 percent GHG threshold. The exemption for such facilities is conditioned on construction being commenced on or before December 31, 2009, and is specific only to facilities which produce ethanol only, per language in EISA. The exemption would continue indefinitely, provided the facility continues to use natural gas and/or biofuel. This section provides the background and summary of the original proposal, and the reasons for the selection of this option.

a. General Background of the Exemption Requirement

EISA amends section 211(o) of the Clean Air Act to provide that renewable fuel produced from new facilities which commenced construction after December 19, 2007 must achieve at least a 20% reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions.[7] Facilities that commenced construction before December 19, 2007 are "grandfathered" and thereby exempt from the 20% GHG reduction requirement.

For facilities that produce ethanol and for which construction commenced after December 19, 2007, section 210 of EISA states that "for calendar years 2008 and 2009, any ethanol plant that is fired with natural gas, biomass, or any combination thereof is deemed to be in compliance with the 20% threshold." Since all renewable fuel production facilities that commenced construction prior to the date of EISA enactment are covered by the more general grandfathering provision, this exemption can only apply to those facilities that commenced construction after enactment of EISA, and before the end of 2009. We proposed that the statute be interpreted to mean that fuel from such qualifying facilities, regardless of date of startup of operations, would be exempt from the 20% GHG threshold requirement for the same time period as facilities that commence construction prior to December 19, 2007, *provided* that such plants commence construction on or before December 31, 2009, complete such construction in a reasonable amount of time, and continue to burn only natural gas, biomass, or a combination thereof. Most commenters generally agreed with our proposal, while other commenters argued that the exemption was only meant to last for a two-year period. As we noted in the NPRM, we believe that it would be a harsh result for investors in these new facilities, and would be generally inconsistent with the energy independence goals of EISA, to interpret the Act such that these facilities would only be guaranteed two years of participation in the RFS2 program. In light of these considerations, we continue to believe that it is an appropriate interpretation of the Act to allow the deemed compliant exemption to continue indefinitely with the limitations we proposed. Therefore we are making final this interpretation in today's rule.

b. Definition of Commenced Construction

In defining "commence" and "construction", we proposed to use the definitions of "commence" and "begin actual construction" from the Prevention of Significant Deterioration (PSD) regulations, which draws upon definitions in the Clean Air Act. (40 CFR 52.21(b)(9) and (11)). Specifically, under the PSD regulations, "commence" means that the owner or operator has all necessary preconstruction approvals or permits and either has begun a continuous program of actual on-site construction to be completed in a reasonable time, or entered into binding agreements which cannot be cancelled or modified without substantial loss." Such activities include, but are not limited to, "installation of building supports and foundations, laying underground pipe work and construction of permanent storage structures." We proposed adding language to the definition that is currently not in the PSD definition with respect to multi-phased projects. We proposed that for multi-phased projects, commencement of construction of one phase does not constitute commencement of construction of any later phase, unless each phase is "mutually dependent" on the other on a physical and chemical basis, rather than economic.

The PSD regulations provide additional conditions beyond addressing what constitutes commencement. Specifically, the regulations require that the owner or operator "did not discontinue construction for a period of 18 months or more and completed construction within a reasonable time." (40 CFR 52.21(i)(4)(ii)(c)). While "reasonable time" may vary depending on the type of project, we proposed that for RFS2 a reasonable time to complete construction of renewable fuel facilities be no greater than 3 years from initial commencement of construction. We sought comment on this time frame.

Commenters generally agreed with our proposed definition of commenced construction. Some commenters felt that the 3 year time frame was not a "reasonable time" to complete construction in light of the economic difficulties that businesses have been and will likely continue to be facing. We recognize that there have been extreme economic problems in the past year. Based on historical data which show construction of ethanol plants typically take about one year, we believe that the 3-year time frame allows such conditions to be taken into account and that it is an appropriate and fair amount of time to allow for completion. Therefore, we are not extending the amount of time that constitutes "reasonable" to five years as was suggested.

c. Definition of Facility Boundary

We proposed that the grandfathering and deemed compliant exemptions apply to "facilities." Our proposed definition of this term is similar in some respects to the definition of "building, structure, facility, or installation" contained in the PSD regulations in 40 CFR 52.21. We proposed to modify the definition, however, to focus on the typical renewable fuel plant. We proposed to describe the exempt "facilities" as including all of the activities and equipment associated with the manufacture of renewable fuel which are located on one property and under the control of the same person or persons. Commenters agreed with our proposed definition of "facility" and we are making that definition final today.

d. Proposed Approaches and Consideration of Comments

We proposed one basic approach to the exemption provisions and sought comment on five additional options. The basic approach would provide an indefinite extension of grandfathering and deemed compliant status but with a limitation of the exemption from the 20% GHG threshold to a baseline volume of renewable fuel. The five additional options for which we sought

comment were: (1) Expiration of exemption for grandfathered and "deemed compliant" status when facilities undergo sufficient changes to be considered "reconstructed"; (2) Expiration of exemption 15 years after EISA enactment, industry-wide; (3) Expiration of exemption 15 years after EISA enactment with limitation of exemption to baseline volume; (4) "Significant" production components are treated as facilities and grandfathered or deemed compliant status ends when they are replaced; and (5) Indefinite exemption and no limitations placed on baseline volumes.

i. Comments on the Proposed Basic Approach

Generally, commenters supported the basic approach in which the volume of renewable fuel from grandfathered facilities exempt from the 20% GHG reduction threshold would be limited to baseline volume. One commenter objected to the basic approach and argued that the statute's use of the word "new" and the phrase "after December 19, 2007" provided evidence that facilities which commenced construction prior to that date would not ever be subject to the threshold regardless of the volume produced from such facilities. In response, we note first that the statute does not provide a definition of the term "new facilities" for which the 20% GHG threshold applies. We believe that it would be reasonable to include within our interpretation of this term a volume limitation, such that a production plant is considered a new facility to the extent that it produces renewable fuel above baseline capacity. This approach also provides certainty in the marketplace in terms of the volumes of exempt fuel, and a relatively straightforward implementation and enforcement mechanism as compared to some of the other alternatives considered. Furthermore, EPA believes that the Act should not be interpreted as allowing unlimited expansion of exempt facilities for an indefinite time period, with all volumes exempt, as suggested by the commenter. Such an approach would likely lead to a substantial increase in production of fuel that is not subject to any GHG limitations, which EPA does not believe would be consistent with the objectives of the Act.

We solicited comment on whether changes at a facility that resulted in an increase in GHG emissions, such as a change in fuel or feedstock, should terminate the facility's exemption from the 20 percent GHG threshold. Generally, commenters did not support such a provision, pointing out that there are many variations within a plant that cannot be adequately captured in a table of fuel and feedstock pathways as we proposed (*see* 74 FR 24927). Implementing such a provision would create questions of accounting and tracking that would need to be evaluated on a time-consuming case-by-case basis. For example, if a switch to a different feedstock or production process resulted in less efficiency, facilities may argue that they are increasing energy efficiency elsewhere (e.g. purchasing waste heat instead of burning fuel onsite to generate steam). We would then need to assess such changes to track the net energy change a plant undergoes. Given the added complexity and difficulty in carrying out such an option, we have decided generally not to implement it. There is an exception, however, for "deemed compliant" facilities. These facilities achieve their status in part by being fired only by natural gas or biomass, or a combination thereof. Today's rule provides, as proposed, that these facilities will lose their exemption if they switch to a fuel other than natural gas, biomass, or a combination thereof, since these were conditions that Congress deemed critical to granting them the exemption from the 20% GHG reduction requirement.

We also solicited comment on whether we should allow a 10% tolerance on the baseline volume for which RINs can be generated without complying with the 20% GHG reduction threshold to allow for increases in volume due to debottlenecking. Some favored this concept, while others argued that the tolerance should be set at 20 percent. After considering the comments received, we have decided that a 10% (and 20%) level is not appropriate for this regulation for the following reasons: (1) We have decided to interpret the exemption of the baseline volume of renewable fuel from the 20 percent requirement as extending indefinitely. Any tolerance provided could, therefore, be present in the marketplace for a considerable time period; (2) increases in volume of 10% or greater could be the result of modifications other than debottlenecking. Consistent with the basic approach we are taking today towards interpreting the grandfathering and deemed compliant provisions, we believe that the fuel produced as a result of such modifications comes from "new facilities" within the meaning of the statute, and should be subject to the 20% GHG reduction requirement; (3) we are allowing baseline volume to be based on the maximum capacity that is allowed under state and federal air permits. With respect to the last reason, facilities that have been operating below the capacity allowed in their state permits would be able to claim a baseline volume based on the maximum capacity. As such, these facilities may indeed be able to increase their volume by 10 to 20 percent by virtue of how their baseline volume is defined. We believe this is appropriate, however, since their permits should reflect their design, and the fuel resulting from their original pre-EISA (or pre-2010, for deemed compliant facilities) design should be exempt from the 20% GHG reduction requirement. Nevertheless, we recognize and agree with commenters that some allowances should be made for minor changes brought about by normal maintenance which are consistent with the proper operation of a facility. EPA is not aware of a particular study or analysis that could be used as a basis for picking a tolerance level reflecting this concept, We believe, however, that the value should be relatively small, so as not to encourage plant expansions that are unrelated to debottlenecking. We believe that a 5% tolerance level is consistent with these considerations, and have incorporated that value in today's rule.

ii. Comments on the Expiration of Grandfathered Status

Commenters who supported an expiration of the exemption did so because of concerns that the proposed approach of providing an indefinite exemption would not provide any incentives to bring these plants into compliance with current standards. They also objected to plants being allowed an indefinite period beyond the time period when it could be expected that they would have paid off their investors. The commenters argued that the cost of operation for such plants would be less than competing plants that do have to comply with current standards; as such, commenters opposed to the basic approach felt an indefinite exemption would be a subsidy to plants that will never comply with the 20 percent threshold level. The renewable fuels industry, on the other hand, viewed the options that would set an expiration date (either via cumulative reconstruction, or a 15-year period from date of enactment) as harsh, particularly if the lifecycle analysis results make it costly for existing facilities to meet the 20% threshold. Some also argued that no such temporal limitation appears in the statute.

We considered such comments, but in light of recent lifecycle analyses we conducted in support of this rule we have concluded that many of the current

technology corn ethanol plants may find it difficult if not impossible to retrofit existing plants to comply with the 20 percent GHG reduction threshold. In addition, the renewable fuels industry viewed the alternative proposals that would set an expiration date (either via cumulative reconstruction, or a 15-year period from date of enactment) as harsh, particularly if the lifecycle analysis results make it costly for existing facilities to meet the 20% threshold. Given the difficulty of meeting such threshold, owners of such facilities could decide to shut down the plant. Given such implications of meeting the 20 percent threshold level for existing facilities we have chosen not to finalize any expiration date.

e. Final Grandfathering Provisions

For the reasons discussed above, the Agency has decided to proceed with the proposed baseline volume approach, rather than the expiration options. We hold open the possibility, therefore, of revisiting and reproposing the exemption provision in a future rulemaking to take such advances into account. Ending the grandfathering exemption after its usefulness is over would help to streamline the ongoing implementation of the program.

The final approach adopted today is summarized as follows:

i. Increases in volume of renewable fuel produced at grandfathered facilities due to expansion

For facilities that commenced construction prior to December 19, 2007, we are defining the baseline volume of renewable fuel exempt from the 20% GHG threshold requirement to be the maximum volumetric capacity of the facility that is allowed in any applicable state air permit or Federal Title V operating permit.[4] We had proposed in the NPRM that nameplate capacity be defined as permitted capacity, but that if the capacity was not stipulated in any federal, state or local air permit, then the actual peak output should be used. We have decided that since permitted capacity is the limiting condition, by virtue of it being an enforceable limit contained in air permits, that the term "nameplate capacity" is not needed. In addition, we are allowing a 5% tolerance as discussed earlier. Therefore, today's rule defines permitted capacity as 105% of the maximum permissible volume output of renewable fuel allowed under operating conditions specified in all applicable preconstruction, construction and operating permits issued by regulatory authorities (including local, regional, state or a foreign equivalent of a state, and federal permits). If the capacity of a facility is not stipulated in such air permits, then the grandfathered volume is 105% of the maximum annual volume produced for any of the last five calendar years prior to 2008. Volumes greater than this amount which may typically be due to expansions of the facility which occur after December 19, 2007, will be subject to the 20% GHG reduction requirement if the facility wishes to generate RINs for the incremental expanded volume. The increased volume will be considered as if produced from a "new facility" which commenced construction after December 19, 2007. Changes that might occur to the mix of renewable fuels produced within the facility are irrelevant—they remain grandfathered as long as the overall volume falls within the baseline volume. Thus, for example, if an ethanol facility changed its operation to produce butanol, but the baseline volume remained the same, the fuel so produced would be exempt from the 20% GHG reduction requirement.

The baseline volume will be defined as above for deemed compliant facilities (those ethanol facilities fired by natural gas or biomass or a combination thereof that commenced construction after December 19, 2007 but before January 1, 2010) with the exception that if the maximum capacity is not stipulated in air permits, then the exempt volume is the maximum annual peak production during the plant's first three years of operation. In addition, any production volume increase that is attributable to construction which commenced prior to December 31, 2009 would be exempt from the 20% GHG threshold, provided that the facility continued to use natural gas, biomass or a combination thereof for process energy. Because deemed compliant facilities owe their status to the fact that they use natural gas, biomass or a combination thereof for process heat, their status will be lost, and they will be subject to the 20% GHG threshold requirement, at any time that they change to a process energy source other than natural gas and/or biomass. Finally, because EISA limits deemed compliant facilities to ethanol facilities, if there are any changes in the mix of renewable fuels produced by the facility, only the ethanol volume remains grandfathered. We had solicited comment on whether fuels other than ethanol could also be deemed compliant. Based on comments received and additional consideration to this matter, we decided that because the Act does not authorize EPA to allow fuels other than ethanol, the deemed compliant provisions will apply only to facilities producing that fuel.

Volume limitations contained in air permits may be defined in terms of peak hourly production rates or a maximum annual capacity. If they are defined only as maximum hourly production rates, they will need to be converted to an annual rate. Because assumption of a 24-hour per day production over 365 days per year (8,760 production hours) may overstate the maximum annual capacity we are requiring a conversion rate of 95% of the total hours in a year (8,322 production hours) based on typical operating "uptime" of ethanol facilities.

The facility registration process (*see* Section II.C) will be used to define the baseline volume for individual facilities. Owners and operators must submit information substantiating the permitted capacity of the plant, or the maximum annual peak capacity if the maximum capacity is not stipulated in a federal, state or local air permit, or EPA Title V operating permit. Copies of applicable air permits which stipulate the maximum annual capacity of the plant, must be provided as part of the registration process. Subsequent expansions at a grandfathered facility that results in an increase in volume above the baseline volume will subject the increase in volume to the 20% GHG emission reduction threshold (but not the original baseline volume). Thus, any new expansions will need to be designed to achieve the 20% GHG reduction threshold if the facility wants to generate RINs for that volume. Such determinations will be made on the basis of EPA-defined fuel pathway categories that are deemed to represent such 20% reduction.

EPA enforcement personnel commented that claims for an exemption from the 20% GHG reduction requirement should be made promptly, so that they can be verified with recent supporting information. They were concerned, in particular, that claims for exempt status could be made many years into the future for facilities that may or may not have concluded construction within the required time period, but delayed actual production of renewable fuel due to market conditions or other reasons. EPA believes that this comment has merit, and has included a requirement in Section 80.1450(f) of the final rule for registration of facilities claiming an exemption from the 20% GHG reduction requirement by May 1,

[4] Volumes also include expansions to existing facilities, provided that the construction for such expansion commences prior to December 19, 2007. In such instances, the total volume from the original facility plus the additional volume due to expansion is grandfathered.

2013. This provision does not require actual fuel production, but simply the filing of registration materials that assert a claim for exempt status. It will benefit both fuel producers, who will likely be able to more readily collect the required information if it is done promptly, and EPA enforcement personnel seeking to verify the information. However, given the potentially significant implications of this requirement for facilities that may qualify for the exemption but miss the registration deadline, the rule also provides that EPA may waive the requirement if it determines that the submission is verifiable to the same extent as a timely-submitted registration.

ii. Replacements of Equipment

If production equipment such as boilers, conveyors, hoppers, storage tanks and other equipment are replaced, it would not be considered construction of a "new facility" under this option of today's final rule—the baseline volume of fuel would continue to be exempt from the 20% GHG threshold. We sought comment on an approach that would require that if coal-fired units are replaced, that the replacement units must be fired with natural gas or biofuel for the product to be eligible for RINs that do not satisfy the 20% GHG threshold. Some commenters supported such an approach. We agreed, however, with other commenters who point out that the language in EISA provides for an indefinite exemption for grandfathered facilities. While we interpret the statute to limit the exemption to the baseline volume of a grandfathered facility, we do not interpret the language to allow EPA to require that replacements of coal fired units be natural gas or biofuel. Thus replacements of coal fired equipment will not affect the facility's grandfathered status.

iii. Registration, Recordkeeping and Reporting

Facility owner/operators will be required to provide evidence and certification of commencement of construction. Such certification will require copies of all applicable air permits that apply to the construction and operation of the facility. Owner/operators must provide annual records of process fuels used on a BTU basis, feedstocks used and product volumes. For facilities that are located outside the United States (including outside the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands) owners will be required to provide certification as well. Since the definition of commencement of construction includes having all necessary air permits, we will require that facilities outside the United States certify that such facilities have obtained all necessary permits for construction and operation required by the appropriate national and local environmental agencies.

4. New Renewable Biomass Definition and Land Restrictions

As explained in Section I, EISA lists seven types of feedstock that qualify as "renewable biomass." EISA limits not only the types of feedstocks that can be used to make renewable fuel, but also the land that these renewable fuel feedstocks may come from. Specifically, EISA's definition of renewable biomass incorporates land restrictions for planted crops and crop residue, planted trees and tree residue, slash and pre-commercial thinnings, and biomass from wildfire areas. EISA prohibits the generation of RINs for renewable fuel made from feedstock that does not meet the definition of renewable biomass, which includes not meeting the associated land restrictions. The following sections describe EPA's interpretation of several key terms related to the definition of renewable biomass, and the approach in today's rule to implementing the renewable biomass requirements.

a. Definitions of Terms

EISA's renewable biomass definition includes a number of terms that require definition. The following sections discuss EPA's definitions for these terms, which were developed with ease of implementation and enforcement in mind. We have made every attempt to define these terms as consistently with other federal statutory and regulatory definitions as well as industry standards as possible, while keeping them workable for purposes of program implementation.

i. Planted Crops and Crop Residue

The first type of renewable biomass described in EISA is planted crops and crop residue harvested from agricultural land cleared or cultivated at any time prior to December 19, 2007, that is either actively managed or fallow, and nonforested. We proposed to interpret the term "planted crops" to include all annual or perennial agricultural crops that may be used as feedstock for renewable fuel, such as grains, oilseeds, and sugarcane, as well as energy crops, such as switchgrass, prairie grass, and other species, providing that they were intentionally applied to the ground by humans either by direct application as seed or nursery stock, or through intentional natural seeding by mature plants left undisturbed for that purpose. We received numerous comments on our proposed definition of "planted crops," largely in support of our proposed definition. However, some commenters noted that "microcrops," such as duckweed, a flowering plant typically grown in ponds or tanks, are also being investigated for used as renewable fuel feedstocks. These microcrops are typically grown in a similar manner to algae, but cannot be categorized as algae since they are relatively more complex organisms. EPA's proposed definition would have unintentionally excluded microcrops such as duckweed through the requirement that planted crops be "applied to the ground." After considering comments received, EPA does not believe that there is any basis under EISA for excluding from the definition of renewable biomass crops such as duckweed that are applied to a tank or pond for growth rather than to the soil. As with other planted crops, these ponds or tanks must be located on existing "agricultural land," as described below, to qualify as renewable biomass under EISA. Therefore, including such microcrops within the definition of renewable biomass will not result in the direct loss of forestland or other ecologically sensitive land that Congress sought to protect through the land restrictions in the definition of renewable biomass. Doing so will further the objectives of the statute of promoting the development of emerging technologies to produce clean alternatives to petroleum-based fuels, and to further U.S. energy independence.

For these reasons, we are finalizing our proposed definition of "planted crops," with the inclusion of provisions allowing for the growth of "microcrops" in ponds or tanks that are located on agricultural land. Our final definition also includes a reference to "vegetative propagation," in which a new plant is produced from an existing vegetative structure, as one means by which planted crops may reproduce, since this is an important method of reproduction for microcrops such as duckweed. The final definition of "planted crops" includes all annual or perennial agricultural crops from existing agricultural land that may be used as feedstock for renewable fuel, such as grains, oilseeds, and sugarcane, as well as energy crops, such as switchgrass, prairie grass, duckweed and other species (but not including algae species or planted trees), providing that they

were intentionally applied by humans to the ground, a growth medium, or a pond or tank, either by direct application as seed or plant, or through intentional natural seeding or vegetative propagation by mature plants introduced or left undisturbed for that purpose. We note that because EISA contains specific provisions for planted trees and tree residue from tree plantations, our final definition of planted crops in EISA excludes planted trees, even if they may be considered planted crops under some circumstances.

We proposed that "crop residue" be limited to the residue, such as corn stover and sugarcane bagasse, left over from the harvesting of planted crops. We sought comment on including biomass from agricultural land removed for purposes of invasive species control or fire management. We received many comments supporting the inclusion of biomass removed from agricultural land for purposes of invasive species control and/or fire management. We believe that such biomass is typically removed from agricultural land for the purpose of preserving or enhancing its value in agricultural crop production. It may be removed at the time crops are harvested, post harvest, periodically (*e.g.,* for pastureland) or during extended fallow periods. We agree with the commenters that this material is a form of biomass residue related to crop production, whether or not derived from a crop itself, and, therefore, are modifying the proposed definition of "crop residue" to include it. We also received comments encouraging us to expand the definition of crop residue to include materials left over after the processing of the crop into a useable resource, such as husks, seeds, bagasse and roots. EPA agrees with these comments and has altered the final definition to cover such materials. Based on comments received, our final definition of "crop residue" is the biomass left over from the harvesting or processing of planted crops from existing agricultural land and any biomass removed from existing agricultural land that facilitates crop management (including biomass removed from such lands in relation to invasive species control or fire management), whether or not the biomass includes any portion of a crop or crop plant.

Our proposed regulations restricted planted crops and crop residue to that harvested from existing agricultural land, which, under our proposed definition, includes three land categories—cropland, pastureland, and Conservation Reserve Program (CRP) land. We proposed to define cropland as land used for the production of crops for harvest, including cultivated cropland for row crops or close-grown crops and non-cultivated cropland for horticultural crops. We proposed to define pastureland as land managed primarily for the production of indigenous or introduced forage plants for livestock grazing or hay production, and to prevent succession to other plant types. We also proposed that CRP land, which is administered by USDA's Farm Service Agency, qualify as "agricultural land" under RFS2.

EPA received numerous comments on our proposed definition of existing agricultural land. Generally, commenters were in support of our definition of "cropland" and its inclusion in the definition of existing agricultural land. Additionally, commenters generally did not object to CRP lands or pastureland being included in the definition of agricultural land. Based on our consideration of comments received on the proposed rule, EPA is including cropland, pastureland and CRP land in the definition of existing agricultural land, as proposed.

We sought comment in the proposal on whether rangeland should be included as agricultural land under RFS2. Rangeland is land on which the indigenous or introduced vegetation is predominantly grasses, grass-like plants, forbs or shrubs and which—unlike cropland or pastureland—is predominantly managed as a natural ecosystem. EPA received a number of comments concerning whether rangeland should be included in the definition of existing agricultural land under RFS2. Some commenters urged EPA to expand the definition of existing agricultural land to include rangeland, arguing that rangelands could serve as important sources of renewable fuel feedstocks. Many of these commenters argued that, although it is generally less intensively managed than cropland, rangeland is nonetheless actively managed through control of brush or weed species, among other practices. In contrast, other commenters argued against the inclusion of rangeland, contending that the potential conversion of rangeland into cropland for growing renewable biomass would lead to losses of carbon, soil, water quality, and biodiversity.

Under EISA, renewable biomass includes crops and crop residue from agricultural land cleared or cultivated at any time prior to the enactment of EISA that is either "actively managed of fallow" and nonforested. In determining whether rangeland should be considered existing agricultural land under this provision, EPA must decide if rangeland qualifies as "actively managed or fallow." EPA believes that the term "actively managed" is best interpreted by reference to the type of material and practices that this provision addresses—namely crops and residue associated with growing crops. We think it is appropriate to inquire whether the type of management involved in a land type is consistent with that which would occur on land where crops are harvested. Thus, while we acknowledge that some types of rangeland are managed to a certain degree, the level of "active management" that is typically associated with land dedicated to growing agricultural crops is far more intensive than the types of management associated with rangeland. For example, rangeland is rarely tilled, fertilized or irrigated as croplands and, to a lesser degree, pasturelands, are. Furthermore, since rangeland encompasses a wide variety of ecosystems, including native grasslands or shrublands, savannas, wetlands, deserts and tundra, including it in the definition of agricultural land would increase the risk that these sensitive ecosystems would become available under EISA for conversion into intensively managed mono-culture cropland. Finally, the conversion of relatively undisturbed rangeland to the production of annual crops could in some cases lead to large releases of GHGs stored in the soil, as well as a loss of biodiversity, both of which would be contrary to EISA's stated goals. For these reasons, EPA is not including rangeland in the definition of "existing agricultural land" in today's final rule.

We proposed to include in our definition of existing agricultural land the requirement that the land was cleared or cultivated prior to December 19, 2007, and that, since December 19, 2007, it has been continuously actively managed (as agricultural land) or fallow, and nonforested. We proposed to interpret the phrase "that is actively managed or fallow, and nonforested" as meaning that land must have been actively managed or fallow, and nonforested, on December 19, 2007, and continuously thereafter in order to qualify for renewable biomass production. We received extensive comments on this interpretation. Many commenters suggested an interpretation of the requirement that agricultural land be "actively managed" to mean that the land had to be "actively managed" at the time EISA was passed on December 17, 2007, such that the amount of land available for biofuel feedstock production was established at that point

and would not diminish over time. Other commenters supported our proposed interpretation, which would mean that the amount of land available for biofuel feedstock production could diminish over time if parcels of land cease to be actively managed at any point, thus taking them out of contention for biofuel feedstock cultivation. Some commenters argued that this interpretation is contrary to Congress' intent and the basic premise of the RFS program since, over time, it could lead to a reduction in the amount of renewable biomass available for use as renewable fuel feedstocks, while the statutorily required volumes of renewable fuel increase over time. These commenters further argue that the active management provision should be interpreted as a "snapshot" of agricultural land existing and actively managed on December 19, 2007. Under this interpretation, the land that was cleared or cultivated prior to December 19, 2007 and was actively managed on that date, would be eligible for renewable biomass production indefinitely.

We agree that the goal of the EISA and RFS program, to increase the presence of renewable fuels in transportation fuel, will be better served by interpreting the "actively managed or fallow" requirement in the renewable biomass definition as applying to land actively managed or fallow on December 19, 2007, rather than interpreting this requirement as applying beginning on December 19, 2007 and continuously thereafter. In addition, by simplifying the requirement in this fashion, there will be significantly less burden on regulated parties in ensuring that their feedstocks come from qualifying lands. For these reasons, we are modifying the definition of existing agricultural land so that the "active management" requirement is satisfied for those that were cleared or cultivated and actively managed or fallow, and non-forested on December 19, 2007.

Further, we proposed and are finalizing that "actively managed" means managed for a predetermined outcome as evidenced by any of the following: Sales records for planted crops, crop residue, or livestock; purchasing records for land treatments such as fertilizer, weed control, or reseeding; a written management plan for agricultural purposes; documentation of participation in an agricultural program sponsored by a Federal, state or local government agency; or documentation of land management in accordance with an agricultural certification program. While we received comments indicating that including a definitive checklist of required evidential records would be helpful to have explicitly identified in the regulations, we are not doing so in order to maintain flexibility, as feedstock producers may vary in the types of evidence they can readily obtain to show that their agricultural land was actively managed. We are adding, however, a clarification that the records must be traceable to the land in question. For example, it will not be sufficient to have a receipt for seed purchase if there is not additional evidence indicating that the seed was applied to the land which is claimed as existing agricultural land.

The term "fallow" is generally used to describe cultivated land taken out of production for a finite period of time. We proposed and sought comment on defining fallow to mean agricultural land that is intentionally left idle to regenerate for future agricultural purposes, with no seeding or planting, harvesting, mowing, or treatment during the fallow period. We also proposed and sought comment on requiring documentation of such intent. We received many comments that supported our proposed definition of fallow. We also received comments indicating that EPA should set a time limit for land to qualify as fallow (as opposed to abandoned for agricultural purposes). We have decided not to include a time limit for land to qualify as "fallow" because we understand that agricultural land may be left fallow for many different purposes and for varying amounts of time. Any particular timeframe that EPA might choose for this purpose would be somewhat arbitrary. Further, EISA does not indicate a time limit on the period of time that qualifying land could be fallow, so EPA does not believe that it would be appropriate to do so in its regulations. Therefore, EPA is finalizing its proposed definition of "fallow."

Finally, in order to define the term "nonforested" as used in the definition of "existing agricultural land," we proposed first to define the term "forestland" as generally undeveloped land covering a minimum area of one acre upon which the predominant vegetative cover is trees, including land that formerly had such tree cover and that will be regenerated. We also proposed that forestland would not include tree plantations. "Nonforested" land under our proposal would be land that is not forestland.

We received many comments on our proposed definition of forestland. Some commenters urged EPA to broaden the definition of "forestland" to include tree plantations, arguing that plantations are well-accepted as a subset of forestland. Others advocated that EPA should make every effort to distinguish between tree plantations and forestland so as not to run the risk of allowing native forests to be converted into less diverse tree plantations from which trees could be harvested for renewable fuel production. For today's final rule, EPA is including tree plantations as a subset of forestland since it is commonly understood as such throughout the forestry industry. Under EISA, renewable biomass may include "slash and pre-commercial thinnings" from non-federal forestlands, and "planted trees and tree residue" from actively managed tree plantations on non-federal land. One effect under EISA of the modification from the proposed rule to include tree plantations as a subset of forestland is to allow pre-commercial thinnings and slash, in addition to planted trees and tree residue, harvested from tree plantations to serve as qualifying feedstocks for renewable fuel production. EPA believes it is appropriate to include pre-commercial thinnings and slash from actively managed tree plantations as renewable biomass, consistent with the EISA provision allowing harvested trees and tree residue from tree plantations to qualify as renewable biomass. Another effect of including the tree plantations as a kind of forestland is that, since crops and crop residue must come from land that was "non-forested" as of the date of EISA enactment, a tract of land managed as a tree plantation on the date of EISA enactment could not be converted to cropland for the production of feedstock for RIN-generating renewable fuel. EPA believes that this result in keeping with Congressional desire to avoid the conversion of new lands to crop production for renewable fuel production.

Additionally, EPA received comments indicating that, in order to be consistent with existing statutory and/or regulatory definitions of "forestland," EPA should exclude tree covered areas in intensive agricultural crop production settings, such as fruit orchards, or tree-covered areas in urban settings such as city parks from the definition of forestland. EPA agrees that these types of land cannot be characterized as "forestland," and is thus excluding them from the definition. EPA's final definition of forestland is "generally undeveloped land covering a minimum of 1 acre upon which the primary vegetative species is trees, including land that formerly had such tree cover and that will be regenerated and tree plantations.

Tree covered areas in intensive agricultural crop production settings, such as fruit orchards, or tree-covered areas in urban settings such as city parks, are not considered forestland."

ii. Planted Trees and Tree Residue

The definition of renewable biomass in EISA includes planted trees and tree residue from actively managed tree plantations on non-federal land cleared at any time prior to December 19, 2007, including land belonging to an Indian tribe or an Indian individual, that is held in trust by the United States or subject to a restriction against alienation imposed by the United States.

We proposed to define the term "planted trees" to include not only trees that were established by human intervention such as planting saplings and artificial seeding, but also trees established from natural seeding by mature trees left undisturbed for such a purpose. Some commenters disagreed with our inclusion of naturally seeded trees in our definition of "planted trees." They argue that an area which is managed for natural regeneration of trees is more akin to a natural forest than a tree plantation, and that the difference between the two types of land should be clear in order to distinguish between the two and to avoid the effective conversion of natural forests to tree plantations under EISA. EPA agrees that the inclusion of natural reseeding in the definition of "planted trees" would make distinguishing between tree plantations and forests difficult or impossible, thus negating the separate restrictions that Congress placed on the two types of land. On the other hand, EPA believes that trees that are naturally seeded and grown together with hand- or machine-planted trees in a tree plantation should not categorically be excluded from qualifying as renewable biomass. Such natural reseeding may occur after planting the majority of trees in a tree plantation, and may be consistent with the management plan for a tree plantation. EPA has decided, therefore, to modify its proposed definition of "planted tree" to be trees harvested from a tree plantation. The term "tree plantation" is defined as a stand of no less than 1 acre composed primarily of trees established by hand- or machine-planting of a seed or sapling, or by coppice growth from the stump or root of a tree that was hand- or machine-planted." The net effect is that as long as a tree plantation consists "primarily" of trees that were hand- or machine planted (or derived therefrom, as described below), then all trees from the tree plantation, including those established from natural seeding by mature trees left undisturbed for such a purpose, will qualify as renewable biomass.

We also received a number of comments suggesting that EPA broaden the definition of planted trees to include other methods of tree regeneration, such as coppice (the production of new stems from stumps or roots), that are frequently used in the forestry industry to regenerate tree plantations. EPA believes that "planted" implies direct human intervention, and that allowing stump-growth from the stump or roots of a tree that was hand- or machine-planted is consistent with this concept. Therefore, today's final rule broadens the concept of "planted trees" from a tree plantation to include "a tree established by hand- or machine-planting of a seed or sapling, or by coppice growth from the stump or root of a tree that was hand- or machine-planted." This new language will appear in the definition of "tree plantation."

In the NPRM, we proposed to define a "tree plantation" as a stand of no fewer than 100 planted trees of similar age and comprising one or two tree species, or an area managed for growth of such trees covering a minimum of one acre. We received numerous comments on our definition of tree plantation. Several commenters urged EPA to define tree plantation more broadly by using the definition from the Dictionary of Forestry—"a stand composed primarily of trees established by planting or artificial seeding," However, this definition does not provide sufficiently clear guidelines for determining whether a given parcel of land would be considered a tree plantation rather than a natural forest. Since trees are considered renewable biomass under RFS2 only if they are harvested from tree plantations, we believe that our proposed definition was clearer and more easily applied in the field. Accordingly, EPA has not adopted the definition of this term from the Dictionary of Forestry. Other commenters argued that there is no technical justification for limiting the number of species or number of trees in a plantation, and that many tree plantations include a variety of species. EPA believes that there is merit in these comments. Accordingly, EPA is finalizing a broadened definition of "tree plantation," by removing the limitations on the number and species of trees. EPA is defining tree plantation as "a stand of no less than 1 acre composed primarily of trees established by hand- or machine-planting of a seed or sapling, or by coppice growth from the stump or root of a tree that was hand- or machine-planted."

We proposed to apply similar management restrictions to tree plantations as would apply to existing agricultural land and also to interpret the EISA language as requiring that to qualify as renewable biomass for renewable fuel production under RFS2, a tree plantation must have been cleared at any time prior to December 19, 2007, and continuously actively managed since December 19, 2007. Consistent with our final position regarding actively managed existing agricultural land, we are defining the term "actively managed" in the context of tree plantations as managed for a predetermined outcome as evidenced by any of the following that must be traceable to the land in question: Sales records for planted trees or slash; purchasing records for seeds, seedlings, or other nursery stock together with other written documentation connecting the land in question to these purchases; a written management plan for silvicultural purposes; documentation of participation in a silvicultural program sponsored by a Federal, state or local government agency; documentation of land management in accordance with an agricultural or silvicultural product certification program; an agreement for land management consultation with a professional forester that identifies the land in question; or evidence of the existence and ongoing maintenance of a road system or other physical infrastructure designed and maintained for logging use, together with one of the above-mentioned documents. Silvicultural programs such as those of the Forest Stewardship Council, the Sustainable Forestry Initiative, the American Tree Farm System, or USDA are examples of the types of programs that could indicate actively managed tree plantations. As with the definition of "actively managed" as it applies to crops from existing agricultural lands, we received extensive comments on this interpretation. As with our final position for crops from existing agricultural lands, we are interpreting the "active management" requirement for tree plantations to apply on the date of EISA's enactment, December 19, 2007. Those tree plantations that were cleared or cultivated and actively managed on December 19, 2007 are eligible for the production of planted trees, tree residue, slash and pre-commercial thinnings for renewable fuel production.

In lieu of the term "tree residue," we proposed to use the term "slash" in our regulations as a more descriptive, but otherwise synonymous, term. According

to the Dictionary of Forestry (1998, p. 168), a source of commonly understood industry definitions, slash is "the residue, *e.g.,* treetops and branches, left on the ground after logging or accumulating as a result of a storm, fire, girdling, or delimbing." We also proposed to clarify that slash can include tree bark and can be the result of any natural disaster, including flooding. We received comments in support of this additional inclusion and are expanding the definition of "slash" to include tree bark and residue resulting from natural disaster, including flooding. We received general support for our proposal to substitute our definition of "slash" for "tree residue," however, several commenters argued that our definition of slash is too narrow to be substituted for "tree residue," which should include woody residues from saw mills and paper mills that process planted trees from tree plantations. EPA agrees that the term "residue" should include this material. Therefore, EPA is expanding the definition of "tree residue" to include residues from processing planted trees at lumber and paper mills, but is limiting it to the biogenically derived portion of the residues that can be traced back to feedstocks meeting the definition of renewable biomass (i.e. planted trees and tree residue from actively managed tree plantations on non-federal land cleared at any time prior to December 19, 2007). RINs may only be generated for the fraction of fuel produced that represents the biogenic portion of the tree residue, using the procedures described in ASTM test method D–6866. Thus, if the tree residues are mixed with chemicals or other materials during processing at the lumber or paper mills, producers may only generate RINs for the portion of the mixture that is actually derived from planted trees. EPA's final definition of "tree residue" is "slash and any woody residue generated during the processing of planted trees from actively managed tree plantations for use in lumber, paper, furniture or other applications, providing that such woody residue is not mixed with similar residue from trees that do not originate in actively managed tree plantations.

iii. Slash and Pre-Commercial Thinnings

The EISA definition of renewable biomass includes slash and pre-commercial thinnings from non-federal forestlands, including forestlands belonging to an Indian tribe or an Indian individual, that are held in trust by the United States or subject to a restriction against alienation imposed by the United States. However, EISA excludes slash and pre-commercial thinnings from forests or forestlands that are ecological communities with a global or State ranking of critically imperiled, imperiled, or rare pursuant to a State Natural Heritage Program, old growth forest, or late successional forest.

As described in Sec. II.B.4.a.i of this preamble, our definition of "forestland" is generally undeveloped land covering a minimum of 1 acre upon which the primary vegetative species is trees, including land that formerly had such tree cover and that will be regenerated and tree plantations. Tree-covered areas in intensive agricultural crop production settings, such as fruit orchards or tree-covered areas in urban setting such as city parks, are not considered forestland. Also as noted in Sec. III.B.4.a.ii of this preamble, we are adopting the definition of slash listed in the Dictionary of Forestry, with the addition of tree bark and residue resulting from natural disaster, including flooding.

As for "pre-commercial thinnings," the Dictionary of Forestry defines the act of such thinning as "the removal of trees not for immediate financial return but to reduce stocking to concentrate growth on the more desirable trees." Because what may now be considered pre-commercial may eventually be saleable as renewable fuel feedstock, we proposed not to include any reference to "financial return" in our definition, but rather to define pre-commercial thinnings as those trees removed from a stand of trees in order to reduce stocking to concentrate growth on more desirable trees. Additionally, we proposed to include diseased trees in the definition of pre-commercial thinnings due to the fact that they can threaten the integrity of an otherwise healthy stand of trees, and their removal can be viewed as reducing stocking to promote the growth of more desirable trees. We sought comment on whether our definition of pre-commercial thinnings should include a maximum diameter and, if so, what the appropriate maximum diameter should be. We received comments on our proposed definition of pre-commercial thinnings that were generally supportive of our proposed definition. Many commenters argued that EPA should not use a maximum tree diameter as a basis for defining pre-commercial thinning as tree diameter varies greatly by forest type and location, making any diameter limitation EPA might set arbitrary. EPA agrees with this assessment. Commenters also argued that pre-commercial thinnings may include other non-tree vegetative material that is removed to promote and improve tree growth. EPA is attempting to utilize standard industry definitions to the extent practicable, and believes that the proposed definition of pre-commercial thinnings, based largely on the Dictionary of Forestry definition with the addition of other vegetative material removed to promote tree growth, is appropriate. Therefore, we are finalizing the proposed definition of "pre-commercial thinnings," with the addition of the phrase "or other vegetative material that is removed to promote tree growth."

We proposed that the State Natural Heritage Programs referred to in EISA are those comprising a network associated with NatureServe, a non-profit conservation and research organization. Individual Natural Heritage Programs collect, analyze, and distribute scientific information about the biological diversity found within their jurisdictions. As part of their activities, these programs survey and apply NatureServe's rankings, such as critically imperiled (S1), imperiled (S2), and rare (S3) to species and ecological communities within their respective borders. NatureServe meanwhile uses data gathered by these Natural Heritage Programs to apply its global rankings, such as critically imperiled (G1), imperiled (G2), or vulnerable (the equivalent of the term "rare," or G3), to species and ecological communities found in multiple States or territories. We proposed and sought comment on prohibiting slash and pre-commercial thinnings from all forest ecological communities with global or State rankings of critically imperiled, imperiled, or vulnerable ("rare" in the case of State rankings) from being used for renewable fuel for which RINs may be generated under RFS2.

We proposed to use data compiled by NatureServe and published in special reports to identify "ecologically sensitive forestland." The reports listed all forest ecological communities in the U.S. with a global ranking of G1, G2, or G3, or with a State ranking of S1, S2, or S3, and included descriptions of the key geographic and biologic attributes of the referenced ecological community. We proposed that the document be incorporated by reference into the definition of renewable biomass in the final RFS2 regulations (and updated as appropriate through notice and comment rulemaking). The document would identify specific ecological communities from which slash and pre-commercial thinnings could not be used as feedstock for the production of renewable fuel that would qualify for RINs under RFS2. Draft versions of the

document containing the global and State rankings were placed in the docket for the proposed rule.

EPA received several comments on our proposed interpretation of EISA's State Natural Heritage Program requirement and the reports listing G1–G3 and S1–S3 ecological communities. Several commenters argued that while EISA authorizes EPA to exclude slash and pre-commercial thinnings from S1–3 and G1 and G2 communities, it does not authorize the exclusion of biomass from G3 communities, which are designated as "vulnerable," not "critically imperiled, imperiled or rare," as EISA requires. The commenters further argue that there is little or no environmental benefit to adding G3 communities to the list of lands unavailable for renewable fuel feedstock production, and that their inclusion limits the availability of forest-derived biomass. EPA agrees with these comments, and has drafted today's final rule so as not to specifically exclude from the definition of renewable biomass slash and pre-commercial thinnings from G3-ranked "vulnerable" ecological communities to qualify as renewable biomass for purposes of RFS2. We are interpreting EISA's language to exclude from the definition of renewable biomass any biomass taken from ecological communities in the U.S. with Natural Heritage Programs global ranking of G1 or G2, or with a State ranking of S1, S2, or S3. We are including in today's rulemaking docket (EPA–HQ–OAR–2005–0161) the list of ecological communities fitting this description.

To complete the definition of "ecologically sensitive forestland," we proposed to include old growth and late successional forestland which is characterized by trees at least 200 years old. We received comments on this proposed definition recommending that EPA not use a single tree age in the define old growth and late-successional forests, as this criterion does not apply to all types of forests. While EPA understands that there are a number of criteria for determining whether a forest is old growth and that the criteria differ depending on the type of forest, for purposes of the RFS2 rule, EPA seeks to use definitive criteria that can be applied by non-professionals. EPA is finalizing the definition of "old growth" as proposed.

iv. Biomass Obtained From Certain Areas at Risk From Wildfire

The EISA definition of renewable biomass includes biomass obtained from the immediate vicinity of buildings and other areas regularly occupied by people, or of public infrastructure, at risk from wildfire. We proposed to clarify in the regulations that "biomass" is organic matter that is available on a renewable or recurring basis, and that it must be obtained from within 200 feet of buildings, campgrounds, and other areas regularly occupied by people, or of public infrastructure, such as utility corridors, bridges, and roadways, in areas at risk of wildfire.

Furthermore, we proposed to define "areas at risk of wildfire" as areas located within—or within one mile of—forestland, tree plantations, or any other generally undeveloped tract of land that is at least one acre in size with substantial vegetative cover. We sought comment on two possible implementation alternatives for identifying areas at risk of wildfire. The first proposed alternative would incorporate into our definition of "areas at risk of wildfire" any communities identified as "communities at risk" and covered by a community wildfire protection plan (CWPP). Communities at risk are defined through a process within the document, "Field Guidance—Identifying and Prioritizing Communities at Risk" (National Association of State Foresters, June 2003). CWPPs are developed in accordance with "Preparing a Community Wildfire Protection Plan—A Handbook for Wildland-Urban Interface Communities" (Society of American Foresters, March 2004) and certified by a State Forester or equivalent. We sought comment on incorporating by reference into the final RFS2 regulations a list of "communities at risk" with an approved CWPP. We also sought comment on a second implementation approach, which would incorporate into our definition of "areas at risk of wildfire" any areas identified as wildland urban interface (WUI) land, or land in which houses meet wildland vegetation or are mixed with vegetation. We noted that SILVIS Lab, in the Department of Forest Ecology and Management and the University of Wisconsin, Madison, has, with funding provided by the U.S. Forest Service, mapped WUI lands based on the 2000 Census and the U.S. Geological Survey National Land Cover Data (NLCD), and we sought comment on how best to use this map.

We received comments on the proposal and on the two proposed alternative options for identifying areas at risk of wildfire. A number of commenters argued that EPA should define "areas at risk of wildfire" using an existing definition of WUI from the Healthy Forests Restoration Act (Pub. L. 108–148). Many commenters recommended that EPA include both lands covered by a CWPP as well as lands meeting the Healthy Forests Restoration Act definition of WUI in order to maximize the amount of land available for biomass feedstock and to encourage the removal of hazardous fuel for wildfires. EPA understands that very few communities that might be eligible for a CWPP actually have one in place, due to the numerous administrative steps that must be taken in order to have a CWPP approved, so the option of defining areas at risk of wildfire exclusively by reference to a list of communities with an approved CWPP would be underinclusive of all lands that a professional forester would consider to be at risk of wildfire. Furthermore, EPA believes that the statutory definition of WUI from the Healthy Forests Restoration Act (Pub. L. 108–148) is too vague using directly in implementing the RFS2 program. If EPA used this WUI definition, individual plots of land would have to be assessed by a professional forester on a case-by-case basis in order to determine if they meet the WUI definition, creating an expensive burden for landowners seeking to sell biomass from their lands as renewable fuel feedstocks.

In light of the comments received and the need for a simple way for landowners and renewable fuel producers to track the status of particular plots of land, for the final rule we are identifying "areas at risk of wildfire" as those areas identified as wildland urban interface. Those areas are depicted and mapped at *http://silvis.forest.wisc.edu/Library/WUILibrary.asp.* The electronic WUI map is a readily accessible reference tool that was prepared by experts in the field of identifying areas at risk of wildfire, and is thus an ideal reference for purposes of implementing RFS2. EPA has included in the rulemaking docket instructions on using the WUI map to find the status of a plot of land.

v. Algae

EISA specifies that "algae" qualify as renewable biomass. EPA did not propose a definition for this term. A number of commenters have requested clarification, specifically asking whether cyanobacteria (also known as blue-green algae), diatoms, and angiosperms are within the definition. Technically, the term "algae" has recently been defined as "thallophytes (plants lacking roots, stems and leaves) that have chlorophyll a as their primary photosynthetic pigment and lack a sterile covering of

cells around the reproductive cells."[5] Algae are relatively simple organisms that are virtually ubiquitous, occurring in freshwater, brackish water, saltwater, and terrestrial habitats. When present in water, they may be suspended, or grow attached to various substrates. They range in size from unicellular to among the longest living organisms (e.g. sea kelp). There is some disagreement among scientists as to whether cyanobacteria should be considered bacteria or algae. Some consider them to be bacteria because of their cellular organization and biochemistry. However, others find it more significant that they contain chlorophyll a, which differs from the chlorophyll of bacteria which are photosynthetic, and also because free oxygen is liberated in blue-green algal photosynthesis but not in that of the bacteria.[6] EPA believes that it furthers the purposes of EISA to interpret the term "algae" in EISA broadly to include cyanobacteria, since doing so will make available another possible feedstock for renewable fuel production that will further the energy independence and greenhouse gas reduction objectives of the Act. Further, EPA expects that cyanobacteria used in biofuel production would be cultivated, as opposed to harvested, and therefore that there would be no significant impact from use of cyanobacteria for biofuel production on naturally occurring algal populations. Diatoms are generally considered by the scientific community to be algae,[7] and, consistent with this general scientific consensus, EPA interprets the EISA definition of algae to include them. Microcrop angiosperms, however, do not meet the definition of algae, even if they live in an aquatic habitat, since they are relatively more complex organisms than the algae. A discussion of microcrop angiosperms is included above in the discussion of "planted crops and crop residue."

b. Implementation of Renewable Biomass Requirements

Our proposed approach to the treatment of renewable biomass under RFS2 was intended to define the conditions under which RINs can be generated as well as the conditions under which renewable fuel can be produced or imported without RINs. Our proposed and final approaches to both of these areas are described in more detail below.

i. Ensuring That RINs Are Generated Only for Fuels Made From Renewable Biomass

The effect of adding EISA's definition of renewable biomass to the RFS program is to ensure that renewable fuels are only eligible for the program if made from certain feedstocks, and if some of those feedstocks come from certain types of land. In the context of our regulatory program, this means that RINs could only be generated if it can be established that the feedstock from which the fuel was made meets EISA's definitions of renewable biomass include land restrictions. Otherwise, no RINs could be generated to represent the renewable fuel produced or imported. The EISA language does not distinguish between domestic renewable fuel feedstocks and renewable fuel feedstocks that come from abroad, so our final rule requires similar feedstock affirmation and recordkeeping requirements for both RIN-generating domestic renewable fuel producers and RIN-generating foreign producers or importers.

We acknowledge that incidental contaminants can be introduced into feedstocks during cultivation, transport or processing. It is not EPA's intent that the presence of such contaminants should disqualify the feedstock as renewable biomass. The final regulations therefore stipulate that the term "renewable biomass" includes incidental contaminants related to customary feedstock production and transport that are present in feedstock that otherwise meets the definition if such incidental contaminants are impractical to remove and occur in de minimus levels. By "related to customary feedstock production and transport," we refer to contaminants related to crop production, such as soil or residues related to fertilizer, pesticide and herbicide applications to crops, as well as contaminants related to feedstock transport, such as nylon rope used to bind feedstock materials. It would also include agricultural contaminants introduced to the feedstock during sorting or shipping, such as miscellaneous sorghum grains present in a load of corn kernels. However, contamination is not related to customary feedstock production and transport, so such feedstocks would not qualify, and in particular, any hazardous waste or toxic chemical contaminant in feedstock would disqualify the feedstock as renewable biomass.

ii. Whether RINs Must Be Generated for All Qualifying Renewable Fuel

Under RFS1, virtually all renewable fuel is required to be assigned a RIN by the producer or importer. This requirement was developed and finalized in the RFS1 rulemaking in order to address stakeholder concerns, particularly from obligated parties, that the number of available RINs should reflect the total volume of renewable fuel used in the transportation sector in the U.S. and facilitate program compliance. EISA has dramatically increased the mandated volumes of renewable fuel that obligated parties must ensure are produced and used in the U.S. At the same time, EISA makes it more difficult for renewable fuel producers to demonstrate that they have fuel that qualifies for RIN generation by restricting qualifying renewable fuel to that made from "renewable biomass." The inclusion of such restrictions under RFS2 may mean that, in some situations, a renewable fuel producer would prefer to forgo the benefits of RIN generation to avoid the cost of ensuring that its feedstocks qualify for RIN generation. If a sufficient number of renewable fuel producers acted in this way, it could lead to a situation in which not all qualifying fuel is assigned RINs, thus resulting in a shortage of RINs in the market that could force obligated parties into non-compliance even though biofuels are being produced and used. Another possible outcome would be that the demand for and price of RINs would increase significantly, making compliance by obligated parties more costly and difficult than necessary and raising prices for consumers.

With these concerns in mind, EPA proposed to preserve in RFS2 the RFS1 requirement that RINs be generated for all qualifying renewable fuel. We also proposed that renewable fuel producers maintain records showing that they utilized feedstocks made from renewable biomass if they are generating RINs, or, if they are not generating RINs, that they did not use feedstocks that qualify as renewable biomass. However, we considered this matter further, and we realize that the implication of these proposed requirements is that renewable fuel producers would be caught in the untenable position of being forced to participate in the RFS2 program (register, keep records, etc.) even if they are unable to generate RINS because their feedstocks do not meet the definition of renewable biomass. We received many comments on the proposed requirement to generate RINs for all qualifying renewable fuel. Most

[5] *Phycology,* Robert Edward Lee, Cambridge University Press, 2008, page 3.

[6] *See,* generally, *Introduction to the Algae. Structure and Reproduction,* by Harold C. Bold and Michael J. Wynne, Prentice-Hall Inc. 1978, page 31.

[7] *See id.*

commenters argued that the requirement to keep records for non-qualifying renewable fuels was excessively onerous and served little purpose for the program.

After considering the comments received, EPA has determined that this requirement would be overly burdensome and unreasonable for producers. The burden stems from the requirement that producers prove that their feedstocks do not qualify if they are not generating RINs. If the data did not exist or could not be obtained, producers could not produce the fuel, even if no RINs would be generated. Thus, for the final rule, EPA is requiring only that producers that do generate RINs have the requisite records (as discussed in section II.B.4.c.i. of this preamble) documenting that their fuel is produced from feedstocks meeting the definition of renewable biomass. Non-RIN generating producers need not maintain any paperwork related to their feedstocks and their origins.

Although EPA is not requiring that RINs be generated for all qualifying renewable fuel, EPA is seeking to avoid situations where biofuels are produced, but RINs are not made available to the market for compliance. EPA received comments requesting that we consider a provision in which any volume of renewable fuel for which RINs were not generated would be an obligated volume for that producer, to serve as a disincentive for those producers who might not generate RINs in order to avoid the RFS program requirements. While EPA is not finalizing this provision in today's rule, we may consider a future rulemaking to promulgate a provision such as this if we find that EISA volumes are not being met due to producers declining to generate RINs for their qualifying renewable fuel. We also note that it is ultimately the availability of qualifying renewable fuel, as determined in part by the number of RINs in the marketplace, that will determine the extent to which EPA should issue a waiver of RFS requirements on the basis of inadequate domestic supply. It is in the interest of renewable fuel producers to avoid a situation where a waiver of the EISA volume requirements appears necessary. EPA encourages renewable fuel producers to generate RINs for all fuel that is made from feedstocks meeting the definition of renewable biomass and that meets the GHG emissions reduction thresholds set out in EISA. *Please see* section II.D.6 for additional discussion of this issue.

c. Implementation Approaches for Domestic Renewable Fuel

Consistent with RFS1, renewable fuel producers will be responsible for generating Renewable Identification Numbers (RINs) under RFS2. In order to determine whether or not their fuel is eligible for generating RINs, renewable fuel producers will generally need to have at least basic information about the origin of their feedstocks, to ensure they meet the definition of renewable biomass. In the proposal, EPA described and sought comment on several approaches for implementing the land restrictions on renewable biomass contained in EISA.

The proposed approach for ensuring that producers generate RINs properly was that EPA would require that renewable fuel producers obtain documentation about their feedstocks from their feedstock supplier(s) and take the measures necessary to ensure that they know the source of their feedstocks and can demonstrate to EPA that they fall within the EISA definition of renewable biomass. EPA would require renewable fuel producers who generate RINs to affirm on their renewable fuel production reports that the feedstock used for each renewable fuel batch meets the definition of renewable biomass. EPA would also require renewable fuel producers to maintain sufficient records to support these claims. Specifically, we proposed that renewable fuel producers who use planted crops or crop residue from existing agricultural land, or who use planted trees or slash from actively managed tree plantations, would be required to have copies of their feedstock producers' written records that serve as evidence of land being actively managed (or fallow, in the case of agricultural land) since December 2007, such as sales records for planted crops or trees, livestock, crop residue, or slash; a written management plan for agricultural or silvicultural purposes; or, documentation of participation in an agricultural or silvicultural program sponsored by a Federal, state or local government agency. In the case of all other biomass, we proposed to require renewable fuel producers to have, at a minimum, written records from their feedstock supplier that serve as evidence that the feedstock qualifies as renewable biomass.

We sought comment on this approach generally as well as other methods of verifying renewable fuel producers' claims that feedstocks qualify as renewable biomass. EPA received extensive comments on the proposed approach. Many affected parties argued that the proposed approach would pose an unnecessary recordkeeping burden on both feedstock and renewable fuel producers when, in practice, new lands will not be cleared, at least in the near future, for purposes of growing renewable fuel feedstocks. Commenters argued that individual recordkeeping was onerous, when compliance with the renewable biomass requirements could be determined through the use of existing data and third-party programs. Commenters contend that the recordkeeping and feedstock tracking requirements are particularly arduous for corn, soybeans and other agricultural crops that are used as renewable fuel feedstocks due to both the maturity and the highly fungible nature of those feedstock systems. In contrast, other commenters argued that recordkeeping and reporting requirements are necessary to ensure that feedstocks are properly verified as renewable biomass to prevent undesirable impacts on natural ecosystems and wildlife habitat globally.

We also sought comment on the possible use under EISA of non-governmental, third-party verification programs used for certifying and tracking agricultural and forest products from point of origin to point of use both within the U.S. and outside the U.S. We examined third-party organizations that certify specific types of biomass from croplands and organizations that certify forest lands, including the Roundtable on Sustainable Palm Oil, the Basel Criteria for Responsible Soy Production, the Roundtable on Sustainable Biofuels (RSB) and the Better Sugarcane Initiative (BSI). Additionally, we examined the work of the international Soy Working Group, the Brazilian Association of Vegetable Oil Industries (ABIOVE) and Brazil's National Association of Grain Exporters (ANEC), Greenpeace, Verified Sustainable Ethanol initiative, the Sustainable Agriculture Network (SAN), the Forest Stewardship Council (FSC), American Tree Farm program and Sustainable Forestry Initiative (SFI). We proposed not to solely rely on any existing third-party verification program to implement the land restrictions on renewable biomass under RFS2 for several reasons. These programs are limited in the scope of products they certify, the acreage of land certified through third parties in the U.S. covers only a small portion of the total available land estimated to qualify for renewable biomass production under the EISA definition, and none of the existing third-party systems had definitions or criteria that perfectly match the land use definitions

and restrictions contained in the EISA definition of renewable biomass.

We received several comments indicating that producers would like to use evidence of their participation in these types of programs to prove that their feedstocks meet the definition of renewable biomass. Others argued that while, at this time, the requirements of third-party programs may not encompass all of the restrictions and requirements of EISA's renewable biomass definition, the programs may alter their criteria in the future to parallel EISA's requirements. EPA agrees that this is a possibility and, in the future, will consider the use of these programs in order to simplify compliance with the renewable biomass requirements. We encourage fuel producers to work to identify changes to such programs that could allow them to be used as a viable compliance option.

In the proposal, EPA also acknowledged that land restrictions contained within the definition of renewable biomass may not, in practice, result in a significant change in agricultural practices, since biomass from nonqualifying lands may still be used for non-fuel (*e.g.,* food) purposes. Therefore, we sought comment on a stakeholder suggestion to establish a baseline level of production of biomass feedstocks such that reporting and recordkeeping requirements would be triggered only when the baseline production levels of feedstocks used for biofuels were exceeded. Additionally, EPA offered as an alternative the use of existing satellite and aerial imagery and mapping software and tools to implement the renewable biomass provisions of EISA. We received numerous comments in support of these options. Commenters argued that USDA collects and maintains ample data on land use that EPA could use to demonstrate that, due to increasing crop yields and other considerations, agricultural land acreage will not expand, at least in the near term, to accommodate the increased renewable fuel obligations of RFS2.

EPA also sought comment on an additional alternative in which EPA would require renewable fuel producers to set up and administer a company-wide quality assurance program that would create an additional level of rigor in the implementation scheme for the EISA land restrictions on renewable biomass. EPA is not finalizing this company-wide quality assurance program approach, but rather, is encouraging the option for an industry-wide quality assurance program, as described in the following section, to be administered.

i. Recordkeeping and Reporting for Feedstocks

After considering the comments we received on the proposed approach, EPA is finalizing reporting and recordkeeping requirements comparable to those in the approach we discussed in the proposed rule for all categories of renewable biomass, with the exception of planted crops and crop residue from agricultural land in the United States, which will be covered by the aggregate compliance approach discussed below in Section II.B.4.c.iii. EPA believes that these requirements on the fuel producer utilizing feedstocks other than crops and crop residue are necessary to ensure that the definition of renewable biomass is being met, and to allow feedstocks to be traced from their original producer to the renewable fuel production facility. Furthermore, we believe that, in most cases, feedstock producers will already have or will be able to easily generate the specified documentation for renewable fuel producers necessary to provide them with adequate assurance that the feedstock in question meets the definition of renewable biomass.

Under today's rule, all renewable fuel producers must maintain written records from their feedstock suppliers for each feedstock purchase that identify the type and amount of feedstocks and where the feedstock was produced and that are sufficient to verify that the feedstock qualifies as renewable biomass. Specifically, renewable fuel producers must maintain maps and/or electronic data identifying the boundaries of the land where the feedstock was produced, product transfer documents (PTDs) or bills of lading tracing the feedstock from that land to the renewable fuel production facility, and other written records that serve as evidence that the feedstock qualifies as renewable biomass. We believe the maps or electronic data can be easily generated using existing Web-based information.

Producers using planted trees and tree residue from tree plantations must maintain additional documentation that serves as evidence that the tree plantation was cleared prior to December 19, 2007, and actively managed as a tree plantation on December 19, 2007. This documentation must consist of the following types of records which must be traceable to the land in question: Sales records for planted trees or slash; purchasing records for fertilizer, weed control, or reseeding, including seeds, seedlings, or other nursery stock together with other written documentation connecting the land in question to these purchases; a written management plan for silvicultural purposes; documentation of participation in a silvicultural program sponsored by a Federal, state or local government agency; or documentation of land management in accordance with a silvicultural product certification program; an agreement for land management consultation with a professional forester that identifies the land in question; or evidence of the existence and ongoing maintenance of a road system or other physical infrastructure designed and maintained for logging use. There are many existing programs, such as those administered by USDA and independent third-party certifiers, that could be used as documentation that verifies that feedstock from certain land qualifies as renewable biomass. For example, many tree plantation owners already participate in a third-party certification program such as FSC or SFI. Written proof of participation by a tract of land in a program of this type on December 19, 2007 would be sufficient to show that a tree plantation was cleared prior to that date and that it was actively managed on that date. The tree plantation owner would need to send copies of this documentation to the renewable fuel producer when supplying them with biomass that will be used as a renewable fuel feedstock.

We anticipate that the recordkeeping requirements will result in renewable fuel producers amending their contracts and modifying their supply chain interactions to satisfy the requirement that producers have documented assurance and proof about their feedstock's origins. Enforcement will rely in part on EPA's review of renewable fuel production reports and attest engagements of renewable fuel producers' records. EPA will also consult other data sources, including any data made available by USDA, and may conduct site visits or inspections of feedstock producers' and suppliers' facilities.

The reporting requirements for renewable biomass in today's final rule include, as proposed, include an affirmation by the renewable fuel producer for each batch of renewable fuel for which they generate RINs that the feedstocks used to produce the batch meet the definition of renewable biomass. Additionally, the final reporting requirements include a quarterly report to be sent to EPA by each renewable fuel producer that includes a summary of the types and volumes of feedstocks used throughout the quarter, as well as electronic data or maps identifying the land from which those feedstocks were harvested.

Producers need not provide duplicate maps if purchasing feedstocks multiple times from one plot of land; producers may cross-reference the previously submitted map. Producers will also be required to keep records tracing the feedstocks from the land to the renewable fuel production facility, other written records from their feedstock suppliers that serve as evidence that the feedstock qualifies as renewable biomass, and for producers using planted trees or tree residue from tree plantations, written records that serve as evidence that the land from which the feedstocks were obtained was cleared prior to December 19, 2007 and actively managed on that date. These requirements will apply to renewable fuel producers using feedstocks from foreign sources (unless special approvals are granted in the future, as described below), or from domestic sources, except for planted crops or crop residue (discussed below).

This approach will be integrated into the existing registration, recordkeeping, reporting, and attest engagement procedures for renewable fuel producers. It places the burden of implementation and enforcement on renewable fuel producers rather than bringing feedstock producers and suppliers directly under EPA regulation, minimizing the number of regulated parties under RFS2.

EPA also sought comment on, and is finalizing as an option, an alternative approach in which EPA allows renewable fuel producers and renewable fuel feedstock producers and suppliers to develop a quality assurance program for the renewable fuel production supply chain, similar to the model of the successful Reformulated Gasoline Survey Association. While individual renewable fuel producers may still choose to comply with the individual renewable biomass recordkeeping and reporting requirements rather than participate in a quality assurance program, we believe that this preferred alternative could be less costly than an individual compliance demonstration, and it would add a quality assurance element to RFS2. Those participating renewable fuel producers would be presumed to be in compliance with the renewable biomass requirements unless and until the quality assurance program finds evidence to the contrary. Under today's rule, renewable fuel producers must choose either to comply with the individual renewable biomass recordkeeping and reporting described above, or they must participate in the quality assurance program.

The quality assurance program must be carried out by an independent auditor funded by renewable fuel producers and feedstock suppliers. The program must consist of a verification program for participating renewable fuel producers and renewable feedstock producers and handlers designed to provide independent oversight of the feedstock handling processes that are required to determine if a feedstock meets the definition of renewable biomass. Under this option, a participating renewable fuel producer and its renewable feedstock suppliers and handlers would have to participate in the funding of an organization which arranges to have an independent auditor conduct a program of compliance surveys. The compliance audit must be carried out by an independent auditor pursuant to a detailed survey plan submitted to EPA for approval by November 1 of the year preceding the year in which the alternative compliance program would be implemented. The compliance survey program plan must include a statistically supportable methodology for the survey, the locations of the surveys, the frequency of audits to be included in the survey, and any other elements that EPA determines are necessary to achieve the same level of quality assurance as the individual recordkeeping and reporting requirements included in the RFS2 regulations.

Under this alternative compliance program, the independent auditor would be required to visit participating renewable feedstock producers and suppliers to determine if the biomass they supply to renewable fuel producers meets the definition of renewable biomass. This program would be designed to ensure representative coverage of participating renewable feedstock producers and suppliers. The auditor would generate and report the results of the surveys to EPA each calendar quarter. In addition, where the survey finds improper designations or handling, the renewable fuel producers would be responsible for identifying and addressing the root cause of the problem. The renewable fuel producers would have to take corrective action to retire the appropriate number of invalid RINs depending on the violation. EPA received comments from a number of parties who were supportive of this option as an alternative and less-burdensome way of ensuring that renewable fuel feedstocks meet the definition of renewable biomass. EPA believes this option to be an efficient and effective means of implementing and enforcing the renewable biomass requirements of EISA, and has therefore included it as a compliance option in today's final rule.

ii. Approaches for Foreign Producers of Renewable Fuel

The EISA renewable biomass language does not distinguish between domestic renewable fuel and fuel feedstocks and renewable fuel and fuel and feedstocks that come from abroad. EPA proposed that foreign producers of renewable fuel that is exported to the U.S. be required to meet the same compliance obligations as domestic renewable fuel producers, as well as some additional measure, discussed in Section II.C., designed to facilitate EPA enforcement in other countries. These proposed obligations include facility registration and submittal of independent engineering reviews (described in Section II.C below), and reporting, recordkeeping, and attest engagement requirements. The proposal also would have included for foreign producers the same obligations that domestic producers have for verifying that their feedstock meets the definition of renewable biomass, such as certifying on each renewable fuel production report that their renewable fuel feedstock meets the definition of renewable biomass and working with their feedstock suppliers to ensure that they receive and maintain accurate and sufficient documentation in their records to support their claims.

(1) RIN-Generating Importers

EPA proposed to allow importers to generate RINs for renewable fuel they are importing into the U.S. only if the foreign producer of that renewable fuel had not already done so. Under the proposal, in order to generate RINs, importers would need to obtain information from the registered foreign producers concerning the point of origin of their fuel's feedstock and whether it meets the definition of renewable biomass. Therefore, we proposed that in the event that a batch of foreign-produced renewable fuel does not have RINs accompanying it when it arrives at a U.S. port, an importer must obtain documentation that proves that the fuel's feedstock meets the definition of renewable biomass (as described in Section II.B.4.a. of this preamble) from the fuel's producer, who must have registered with the RFS program and conducted a third-party engineering review. With such documentation, the importer could generate RINs prior to introducing the fuel into commerce in the U.S.

We sought comment on this proposed approach and whether and to what extent the approaches for ensuring

compliance with the EISA's land restrictions by foreign renewable fuel producers should differ from the proposed approach for domestic renewable fuel producers. We received comments on the proposed implementation option for importers of foreign renewable fuel. Some argue that the proposed recordkeeping requirements for imported fuel were overly burdensome. On the other hand, others argued that importers, similarly to domestic producers, should be required to obtain information that can serve as evidence that the feedstocks meet the definition of renewable biomass, in order to avoid fraud. Some commenters also argued that importers should be able to generate RINs for fuel imported from foreign producers that are not registered with EPA under the RFS2 program.

For the final rule, EPA is requiring that importers may only generate RINs for renewable fuel if the foreign producer has not already done so. The foreign producers must be registered with EPA under the RFS2 program, and must have conducted an independent engineering review. Furthermore, we are requiring that importers obtain from the foreign producer and maintain in their records written documentation that serves as evidence that the renewable fuel for which they are generating RINs was made from feedstocks meeting the definition of renewable biomass. The foreign producer that originally generated the fuel must ensure that these feedstock records are transferred with each batch of fuel and ultimately reach the RIN-generating importer. A requirement that importers maintain these renewable biomass records is consistent with the renewable biomass recordkeeping requirements imposed on domestic producers of renewable fuel.

(2) RIN-Generating Foreign Producers

Foreign producers that intend to generate RINs would be required to designate renewable fuel intended for export to the U.S. as such, segregate the volume until it reaches the U.S., and post a bond to ensure that penalties can be assessed in the event of a violation, as discussed in Section II.D.2.b. Similarly to domestic producers of renewable fuel, foreign producers must obtain and maintain written documentation from their feedstock providers that can serve as evidence that their feedstocks meet the definition of renewable biomass. Foreign producers may also develop a quality assurance program for their renewable fuel production supply chain, as described above. However, while domestic renewable fuel producers using crops or crop residues may rely on the aggregate compliance approach described below to ensure that their feedstocks are renewable biomass, this approach is not available at this time to foreign renewable fuel producers, as described below.

EPA believes that the renewable biomass recordkeeping provisions are necessary in order for EPA to ensure that RINs are being generated for fuel that meets EISA's definition of renewable fuel. Just as for domestic producers, foreign producers must maintain evidence that the fuel meets the GHG reduction requirements and is made from renewable biomass.

iii. Aggregate Compliance Approach for Planted Crops and Crop Residue From Agricultural Land

In light of the comments received on the proposed renewable biomass recordkeeping requirements and implementation options, EPA sought assistance from USDA in determining whether existing data and data sources might suggest an alternative method for verifying compliance with renewable biomass requirements associated with the use of crops and crop residue for renewable fuel production. Taking into consideration publicly available data on agricultural land available from USDA and USGS as well as expected economic incentives for feedstock producers, EPA has determined that an aggregate compliance approach is appropriate for certain types of renewable biomass, namely planted crops and crop residue from the United States.

Under the aggregate compliance approach, EPA is determining for this rule the total amount of "existing agricultural land" in the U.S. (as defined above in Section II.B.4.a.) at the enactment date of EISA, which is 402 million acres. EPA will monitor total agricultural land annually to determine if national agricultural land acreage increases above this 2007 national aggregate baseline. Feedstocks derived from planted crops and crop residues will be considered to be consistent with the definition of renewable biomass and renewable fuel producers using these feedstocks will not be required to maintain specific renewable biomass records as described below unless and until EPA determines that the 2007 national aggregate baseline is exceeded. If EPA finds that the national aggregate baseline is exceeded, individual recordkeeping and reporting requirements as described below will be triggered for renewable fuel producers using crops and crop residue. We believe that the aggregate approach will fully ensure that the EISA renewable biomass provisions related to crops and crop residue are satisfied, while also easing the burden for certain renewable fuel producers and their feedstock suppliers vis-à-vis verification that their feedstock qualifies as renewable biomass.

As discussed in more detail below, there are five main factors supporting the aggregate compliance approach we are taking for planted crops and crop residue. First, EPA is using data sets that allow us to obtain an appropriately representative estimate of the agricultural lands available under EISA for the production of crops and crop residue as feedstock for renewable fuel production. Second, USDA data indicate an overall trend of agricultural land contraction. These data, together with EPA economic modeling, suggest that 2007 aggregate baseline acreage should be sufficient to support EISA renewable fuel obligations and other foreseeable demands for crop products, at least in the near term, without clearing and cultivating additional land. Third, EPA believes that existing economic factors for feedstock producers favor more efficient utilization practices of existing agricultural land rather than converting non-agricultural lands to crop production. Fourth, if, at any point, EPA finds that the total amount of land in use for the production of crops including crops for grazing and forage is equal or greater than 397 million acres (i.e. within 5 million acres of EPA's established 402 million acre baseline), EPA will conduct further investigations to evaluate whether the presumption built into the aggregate compliance approach remains valid. Lastly, EPA has set up a trigger mechanism that in the event there are more than the baseline amount of acres of cropland, pastureland and CRP land in production, renewable fuel producers will be required to meet the same individual or consortium-based recordkeeping and reporting requirements applicable to RIN-generating renewable fuel producers using other feedstocks. Taken together, these factors give EPA high confidence that the aggregate compliance approach for domestically grown crops and crop residues meets the statutory obligation to ensure feedstock volumes used to meet the renewable fuel requirements also comply with the definition of renewable biomass.

(1) Analysis of Total Agricultural Land in 2007

As described in Section II.B.4.a. above, EPA is defining "existing agricultural land" for purposes of the

EISA land use restrictions on crops and crop residue to include cropland, pastureland and CRP land that was cleared and actively managed or fallow and nonforested on the date of EISA enactment. To determine the aggregate total acreage of existing agricultural land for the aggregate compliance approach on the date of EISA enactment, EPA obtained from USDA data representing total cropland (including fallow cropland), pastureland, and CRP land in 2007 from three independently gathered national land use data sources (discussed in further detail below): The Farm Service Agency (FSA) Crop History Data, the USDA Census of Agriculture (2007), and the satellite-based USDA Crop Data Layer (CDL). In addition, CRP acreage is provided by FSA's annually published "Conservation Reserve Program: Summary and Enrollment Statistics." By definition, the cropland, pastureland, and CRP land included in these data sources for 2007 were cleared or cultivated on the date of EISA enactment (December 19, 2007) and, consistent with the principles set forth in Section II.4.a.i, would be considered "actively managed" or fallow and nonforested on that date. These categories of lands include those from which traditional crops, such as corn, soy, wheat and sorghum, would likely be grown. Therefore quantification of cropland, pastureland, and CRP land from these data sources represents a reasonable assessment of the acreage in the United States that is available under the Act for the production of crops and crop residues that could satisfy the definition of renewable biomass in EISA.

Conservation Reserve Program Data. FSA reports CRP enrollment acreage each year in the publication "Conservation Reserve Program: Summary and Enrollment Statistics." The CRP program includes the general CRP, the Conservation Reserve Enhancement Program (CREP), and the Farmable Wetlands Program (FWP). The Wetlands Reserve Program (WRP) and Grasslands Reserve Program (GRP) are not under CRP and are not included in the total agricultural land figure in this rulemaking. The 2007 CRP acreage was 36.7 million acres. This is an exact count of acreage within the CRP program in 2007.

Farm Service Agency Crop History Data. The FSA maintains annual records of field-level land use data for all farms enrolled in FSA programs. Almost all national cropland and pastureland is reported through FSA and recorded in this data set. We used the "Cropland" category to determine total agricultural land. Pastureland is reported by farms under the category "Cropland" as cropland used for grazing and forage under the crop type "mixed forage." Timber land and any grazed native grass was removed from the "Cropland" category, because these land types represent either forestland or rangeland, which are not within the definition of existing agricultural land. CRP lands and other conservation program lands are also reported as cropland. Because GRP and WRP lands are not within the definition of "existing agricultural land" as defined in today's regulations, they were also subtracted from the "Cropland" category total. FSA Crop History Data show that there was 402 million acres of agricultural land, as defined here, in the U.S. in 2007 (*See* Table II.B.4–1).

TABLE II.B.4–1—TOTAL U.S. AGRICULTURAL LAND IN 2007 FROM USDA DATA SOURCES

Land category	FSA crop history data	Agricultural census data
Cropland and Pastureland	365	367
CRP Land	37	37
Total Land	402	404

USDA Census of Agriculture. USDA conducts a full census of the U.S. agricultural sector once every five years. The data are available for the U.S., each of the 50 States, and for each county. The most recent census available is the 2007 Census of Agriculture. For the purpose of this rulemaking, USDA provided EPA total acreage and 95% confidence intervals for the Census category "Total Cropland," which includes the sub-categories "Harvested cropland," "Cropland used only for pasture and grazing," and "Other cropland." WRP and GRP acreage are included in "Other cropland," so, for purposes of this rulemaking, they were subtracted from the sub-category number (see above). The analysis excluded the "Permanent rangeland and pasture" category, as the pasture data cannot be separated from rangeland in this category. Total CRP acreage in 2007 was added to "Total cropland." With these adjustments, the Census of Agriculture showed 404 million acres (95% confidence range 401–406 million acres) of existing agricultural land as defined in today's rule, in the U.S. in 2007 (*See* Table II.B.4–1).

Crop Data Layer. The USDA National Agricultural Statistics Service (NASS) Crop Data Layer (CDL) is a raster, geo-referenced, crop-specific land cover data layer suitable for use in geographic information systems (GIS) analysis. Based on satellite data, the CDL has a ground resolution of 56 meters and was verified using FSA surveys. The CDL covers 21 major agricultural states for 2007 and therefore cannot be used to determine a 2007 national aggregate agricultural land baseline. There will be full coverage of the 48 contiguous states for 2009, and the CDL can be used for analysis validation purposes during monitoring. From 2010 onward, it coverage of the 48 contiguous states will be dependent on available funding. GIS analyses of the CDL will include all cropland and pastureland data for each state. To ensure that non-pasture grasslands are not included in the final sum, all areas of the "Grassland herbaceous" category from the U.S. Geological National Land Cover Data layer (NLCD) that overlap the CDL layers are removed from the total agricultural land number. Producer and user accuracies [8] are available for the CDL crop categories.

Primary Data Source Selection for Aggregate Compliance Approach. EPA has determined that the FSA Crop History Data will be used as the data set on which the total existing agricultural land baseline will be based for the aggregate compliance approach. The FSA Crop History Data is the only complete data set for 2007 that is collected annually, enabling EPA to monitor agricultural land expansion or

[8] "Producer Accuracy" indicates the probability that a groundtruth pixel will be correctly mapped and measures errors of omission; "User Accuracy" indicates the probability that a pixel from the classification actually matches the groundtruth data and measures errors of omission.

contraction from year to year using a consistent data set. The total existing agricultural land value derived from FSA Crop History Data rests within the 95% confidence interval of the 2007 Census of Agriculture and is only 2 million acres less than the Census of Agriculture point estimate. The Census of Agriculture provides slightly fuller coverage than the FSA Crop History Data due to the nature of the data collection; however, given that both data collection systems have consistent and long-standing methodologies, the disparity between the two should remain approximately constant. Therefore, the FSA Crop History Data will provide a consistent data set for analyzing any expansion or contraction of total national agricultural land in the U.S.

During its annual monitoring, EPA will use the FSA Crop History Data and the CDL analyses as a secondary source to validate our annual assessment. In years when the Census of Agriculture is updated, this data will also be used to validate our annual assessment. Other data sources, such as the annual NASS Farms, Land in Farms and Livestock Operations may also be useful as secondary data checks. Lastly, EPA intends to consider, as appropriate, other data sources for the annual monitoring analysis of total agricultural land as new technologies and data sources come online that would improve the accuracy and robustness of annual monitoring.

(2) Aggregate Agricultural Land Trends Over Time

The Census of Agriculture (conducted every five years) shows that U.S. agricultural land has decreased by 44 million acres from 1997 to 2007, indicating an overall decade trend of contraction of agricultural land utilization despite some year-to-year variations that can be seen by reference to the annual FSA Crop History records (*See* Table II.B.4–2 and Table II.B.4–3). EPA's FASOM modeling results, which model full EISA volumes in 2022, support this contraction trend, indicating that total cropland, pastureland, and CRP land in the U.S. in 2022, under a scenario of full renewable fuel volume as required by EISA, would be less than the 2007 national acreage reported in the FSA Crop History Data (*See* preamble Section VII and RIA Chapter 5).

TABLE II.B.4–2—TOTAL AGRICULTURAL LAND (AS DEFINED IN SECTION II.B.4.a) COUNTED IN THE CENSUS OF AGRICULTURE FROM 1997–2007

Census year	Total agricultural land (millions of acres)
2007	404
2002*	431
1997*	445

*2002 data do not include farms with land in FWP or CREP.

TABLE II.B.4–3—TOTAL AGRICULTURAL LAND (AS DEFINED IN SECTION II.B.4.a) RECORDED IN FSA CROP HISTORY DATA FROM 2005–2007

Year	Total agricultural land (millions of acres)
2007	402
2006	393
2005	392

(3) Aggregate Compliance Determination

The foundation of the aggregate compliance approach is establishment of a baseline amount of eligible agricultural land that was cleared or cultivated and actively managed or fallow and non-forested on December 19, 2007. Based on USDA–FSA Crop History Data, EPA is establishing a baseline of 402 million acres of U.S. agricultural land, as defined in Section II.B.4.a and based upon the methods described in Section II.B.4.c.iii.(1), that is eligible for production of planted crops and crop residue meeting the EISA definition of renewable biomass. EPA will monitor total U.S. agricultural land annually, using FSA Crop History Data as a primary determinant, but using other data sources for support (*See* Section II.4.c.iii.(1)). If, at any point, EPA finds that the total land in use for the production of crops, including crops for grazing and forage, is greater than 397 million acres (i.e. within 5 million acres of EPA's established 402 million acre baseline), EPA will conduct further investigations to evaluate whether the presumption built into the aggregate compliance approach remains valid. Additionally, if EPA determines that the data indicates that this 2007 baseline level of eligible agricultural land has been exceeded, EPA will publish in the **Federal Register** a finding to that effect, and additional requirements will be triggered for renewable fuel producers to verify that they are using planted crops and crop residue from "existing agricultural land" as defined in today's rule as their renewable fuel feedstock. EPA's findings will be published by November 30, at the latest. If in November the 402 million acres baseline is found to be exceeded, then on July 1 of the following year, renewable fuel producers using feedstocks qualifying for this aggregate compliance approach, namely planted crops and crop residue from the United States, will be required to comply with the recordkeeping and reporting requirements applicable to producers using other types of renewable biomass, as described in the previous sections. This includes the option that fuel producers could utilize a third-party consortium to demonstrate compliance.

EPA acknowledges that it is possible that under this approach some of the land available under EISA for crop production on the date of EISA enactment could be retired and other land brought into production, without altering the assessment of the aggregate amount of cropland, pastureland and CRP land. Under EISA, crops or crop residues from the new lands would not qualify as renewable biomass. However, EPA expects such shifts in acreage to be de minimus, as long as the total aggregate amount of agricultural land does not exceed the 2007 national aggregate baseline. EPA expects that new lands are unlikely to be cleared for agricultural purposes for two reasons. First, it can be assumed that most undeveloped land that was not used as agricultural land in 2007 is generally not suitable for agricultural purposes and would serve only marginally well for production of renewable fuel feedstocks. Due to the high costs and significant inputs that would be required to make the non-agricultural land suitable for agricultural purposes, it is highly unlikely that farmers will undertake the effort to "shift" land that is currently non-agricultural into agricultural use. Second, crop yields are projected to increase, reducing the need for farmers to clear new land for agricultural purposes. We believe that this effect is reflected in the overall trend, discussed earlier, of an overall contraction in agricultural land acreage over time.

If EPA determines that the baseline is exceeded, and that individual compliance with the renewable biomass reporting and recordkeeping requirements is triggered, renewable fuel producers using crops and crop residue as a feedstock for renewable fuel would become responsible, beginning July 1 of the following year, for meeting individual recordkeeping and reporting requirements related to renewable biomass verification. These requirements are identical to those that

apply to producers using other types of renewable biomass feedstocks, such as planted trees from tree plantations, as described in the previous sections. Renewable fuel producers generating RINs under the RFS2 program would continue to be required to affirm (through EMTS—EPA Moderated Transaction System) for each batch of renewable fuel that their feedstocks meet the definition of renewable biomass. Additionally, producers would send a quarterly report to EPA that includes a summary of the types and volumes of feedstocks used throughout the quarter, as well as electronic data or maps identifying the land from which those feedstocks were harvested.

Furthermore, those RIN-generating renewable fuel producers will be required to obtain and maintain in their files written records from their feedstock suppliers for each feedstock purchase that identify where the feedstocks were produced and that are sufficient to verify that the feedstocks qualify as renewable biomass. This includes maps and/or electronic data identifying the boundaries of the land where the feedstock was produced, PTDs or bills of lading tracing the feedstock from that land to the renewable fuel production facility, and other written records that serve as evidence that the feedstock qualifies as renewable biomass. Finally, producers using planted crops and crop residue must maintain additional documentation that serves as evidence that the agricultural land used to produce the crop or crop residue was cleared or cultivated and actively managed or fallow, and nonforested on December 19, 2007. This documentation must consist of the following types of records which must be traced to the land in question: sales records for planted crops, crop residue, or livestock, purchasing records for land treatments such as fertilizer, weed control, or reseeding or a written agricultural management plan or documentation of participation in an agricultural program sponsored by a Federal, State or local government agency.

Alternatively, if the baseline is exceeded and the requirements are triggered for individual producer verification that their feedstocks are renewable biomass renewable fuel producers may choose to work with other renewable fuel producers as well as feedstock producers and suppliers to develop a quality assurance program for the renewable fuel production supply chain. This quality assurance program would take the place of individual accounting and would consist of an independent third party quality-assurance survey of all participating renewable fuel producers and their feedstock suppliers, completed in accordance with an industry-developed, EPA-approved plan, to ensure that they are utilizing feedstocks that meet the definition of renewable biomass. An in-depth discussion of this industry survey option is included in the previous section.

While the aggregate compliance approach is appropriate for planted crops and crop residues from agricultural land in the United States, due in part to certain additional or different constraints imposed by EISA, the aggregate approach cannot be applied, at this time, to the other types of renewable biomass. Renewable fuel producers utilizing these types of renewable biomass, including planted trees and tree residues from tree plantations, slash and pre-commercial thinnings from non-federal forestland, animal waste, separated yard and food waste, etc., will be subject to the individual reporting and recordkeeping requirements discussed in the previous section.

Additionally, EPA is not finalizing the aggregate compliance approach for foreign producers of renewable fuel. EPA does not, at this time, have sufficient data to make a finding that non-domestically grown crops and crop residues used in renewable fuel production satisfy the definition of renewable biomass. Nevertheless, if, in the future, adequate land use data becomes available to make a finding that, in the aggregate, crops and crop residues used in renewable fuel production in a particular country satisfy the definition of renewable biomass, EPA is willing to consider an aggregate compliance approach for renewable biomass on a country by country basis, in lieu of the individual recordkeeping and reporting requirements.

d. Treatment of Municipal Solid Waste (MSW)

The statutory definition of "renewable biomass" does not include a reference to municipal solid waste (MSW) as did the definition of "cellulosic biomass ethanol" in the Energy Policy Act of 2005 (EPAct), but instead includes "separated yard waste and food waste."

We solicited comment on whether EPA can and should interpret EISA as including MSW that contains yard and/or food waste within the definition of renewable biomass. On the one hand, the reference in the statutory definition to "separated yard waste and food waste," and the lack of reference to other components of MSW (such as waste paper and wood waste) suggests that only yard and food wastes physically separated from other waste materials satisfy the definition of renewable biomass. On the other hand, we noted that EISA does not define the term "separated," and so does not specify the degree of separation required. We also noted that there was some evidence in the Act that Congress did not intend to exclude MSW entirely from the definition of renewable biomass. The definition of "advanced biofuel" includes a list of fuels that are "eligible for consideration" as advanced biofuel, including "ethanol derived from waste material" and biogas "including landfill gas."

As an initial matter, we note that some materials clearly fall within the definition of "separated yard or food waste." The statute itself identifies "recycled cooking and trap grease" as one example of separated food waste. An example of separated yard waste is the leaf waste that many municipalities pick up at curbside and keep separate from other components of MSW for mulching or other uses. However, a large quantity of food and yard waste is disposed of together with other household waste as part of MSW. EPA estimates that about 120 million tons of MSW are disposed of annually much of it inextricably mixed with yard and especially food waste. This material offers a potentially reliable, abundant and inexpensive source of feedstock for renewable fuel production which, if used, could reduce the volume of discarded materials sent to landfills and could help achieve both the GHG emissions reductions and energy independence goals of EISA. Thus, EPA believes we should consider under what conditions yard and food waste that is present in MSW can be deemed sufficiently separated from other materials to qualify as renewable biomass.

One commenter stated that it is clear that MSW does not qualify as renewable biomass under EISA, since the 2005 Energy Policy Act explicitly allowed for qualifying renewable fuel to be made from MSW, and EISA has no mention of it. Commenters from the renewable fuel industry generally favored maximum flexibility for the use of MSW in producing qualifying fuels under EISA, offering a variety of arguments based on the statutory text and reasons why it would benefit the environment and the nation's energy policy to do so. They favored either (1) a determination that unsorted MSW can be used as a feedstock for advanced biofuel even if it does not meet the definition of

renewable biomass, (2) that the Act be interpreted to include MSW as renewable biomass, or (3) that MSW from which varying amounts of recyclable materials have been removed could qualify as renewable biomass. A consortium of ten environmental groups said that for EISA volume mandates to be met, it is important to take advantage of biomass resources from urban wastes that would otherwise be landfilled. They urged that post-recycling residues (*i.e.,* those wastes that are left over at material recovery facilities after separation and recycling) would fit within the letter and spirit of the definition of renewable biomass.

EPA does not believe that the statute can be reasonably interpreted to allow advanced biofuel to be made from material that does not meet the definition of renewable biomass as suggested in the first approach. The definition of advanced biofuel specifies that it is a form of "renewable fuel," and renewable fuel is defined in the statute as fuel that is made from renewable biomass. While the definition of advanced biofuel includes a list of materials that "may" be "eligible for consideration" as advanced biofuel, and that list includes "ethanol derived from waste materials" and biogas "including landfill gas," the fact that the specified items are "eligible for consideration" indicates that they do not necessarily qualify but must meet the definitional requirements—being "renewable fuel" made from renewable biomass and having life cycle greenhouse gas emissions that are at least 50% less than baseline fuel. There is nothing in the statute to suggest that Congress used the term "renewable fuel" in the definition of "advanced biofuel" to have a different meaning than the definition provided in the statute. The result of the commenter's first approach would be that general renewable fuel and cellulosic biofuel would be required to be made from renewable biomass because the definitions of those terms specifically refer to renewable biomass, whereas advanced biofuel and biomass-based diesel would not, because their definitions refer to "renewable fuel" rather than "renewable biomass." EPA can discern no basis for such a distinction. EPA believes that the Act as a whole is best interpreted as requiring all types of qualifying renewable fuels under EISA to be made from renewable biomass. In this manner the land and feedstock restrictions that Congress deemed important in the context of biofuel production apply to all types of renewable fuels.

EPA also does not agree with the commenter who suggested that the listing in the definition of renewable biomass of "biomass obtained from the immediate vicinity of buildings and other areas regularly occupied by people, or of public infrastructure, at risk from wildfire" should be interpreted to include MSW. It is clear that the term "at risk of wildfire" modifies the entire sentence, and the purpose of the listing is to make the biomass that is removed in wildfire minimization efforts, such as brush and dead woody material, available for renewable fuel production. Such material does not typically include MSW. Had Congress intended to include MSW in the definition of renewable biomass, EPA believes it would have clearly done so, in a manner similar to the approach taken in EPAct.

EPA also does not believe that it would be reasonable to interpret the reference to "separated yard or food waste" to include unsorted MSW. Although MSW contains yard and food waste, such an approach would not give meaning to the word "separated."

We do believe, however, that yard and food wastes that are part of MSW, and are separated from it, should qualify as renewable biomass. MSW is the logical source from which yard waste and food waste can be separated. As to the degree of separation required, some commenters suggested a simple "post recycling" test be appropriate. They would leave to municipalities and waste handlers a determination of how much waste should be recycled before the residue was used as a feedstock for renewable fuel production. EPA believes that such an approach would not guarantee sufficient "separation" from MSW of materials that are not yard waste or food waste to give meaning to the statutory text. Instead, EPA believes it would be reasonable in the MSW context to interpret the word "separated" in the term "separated yard or food waste" to refer to the degree of separation to the extent that is reasonably practicable. A large amount of material can be, and is, removed from MSW and sold to companies that will recycle the material. EPA believes that the residues remaining after reasonably practicable efforts to remove recyclable materials other than food and yard waste (including paper, cardboard, plastic, textiles, metal and glass) from MSW should qualify as separated yard and food waste. This MSW-derived residue would likely include some amount of residual non-recyclable plastic and rubber of fossil fuel origin, much of it being wrapping and packaging material for food. Since this material cannot be practicably separated from the remaining food and yard waste, EPA believes it is incidental material that is impractical to remove and therefore appropriate to include in the category of separated food and yard waste. In sum, EPA believes that the biogenic portion of the residue remaining after paper, cardboard, plastic, textiles metal and glass have been removed for recycling should qualify as renewable biomass. This interpretation is consistent with the text of the statute, and will promote the productive use of materials that would otherwise be landfilled. It will also further the goals of EISA in promoting energy independence and the reduction of GHG emissions from transportation fuels.

EPA notes there are a variety of recycling methods that can be used, including curbside recycling programs, as well as separation and sorting at a material recovery facility (MRF). For the latter, the sorting could be done by hand or by automated equipment, or by a combination of the two. Sorting by hand is very labor intensive and much slower than using an automated system. In most cases the "by-hand" system produces a slightly cleaner stream, but the high cost of labor usually makes the automated system more cost-effective. Separation via MRFs is generally very efficient and can provide comparable if not better removal of recyclables to that achieved by curbside recycling.

Based on this analysis, today's rule provides that those MSW-derived residues that remain after reasonably practicable separation of recyclable materials other than food and yard waste is renewable biomass. What remains to be addressed is what regulatory mechanisms should be used to ensure the appropriate generation of RINs when separated yard and food waste is used as a feedstock. We are finalizing two methods.

The first method would apply primarily to a small subset of producers who are able to obtain yard and/or food wastes that have been kept separate since waste generation from the MSW waste stream. Examples of such wastes are lawn and leaf waste that have never entered the general MSW waste stream. Typically, such wastes contain incidental amounts of materials such as the plastic twine used to bind twigs together, food wrappers, and other extraneous materials. As with our general approach to the presence of incidental, de minimus contaminants in feedstocks that are unintentionally present and impractical to remove, the presence of such material in separated yard or food waste will not disqualify such wastes as renewable biomass, and the contaminants may be disregarded by producers and importers generating

RINs. (*See* definition of renewable biomass and 80.1426(f)(1).) Waste streams kept separate since generation from MSW that consist of yard waste are expected to be composed almost entirely of woody material or leaves, and therefore will be deemed to be composed of cellulosic materials. Waste streams consisting of food wastes, however, may contain both cellulosic and non-cellulosic materials. For example, a food processing plant may generate both wastes that are primarily starches and sugars (such as carrot and potato peelings, as well as fruits and vegetables that are discarded) as well as corn cobs and other materials that are cellulosic. We will deem waste streams consisting of food waste to be composed entirely of non-cellulosic materials, and qualifying as advanced biofuels, unless the producer demonstrates that some portion of the food waste is cellulosic. The cellulosic portion would then qualify as cellulosic biofuel. The method for quantifying the cellulosic and non-cellulosic portions of the food waste stream is to be described in a written plan which must be submitted to EPA under the registration procedures in 80.1450(b)(vii) for approval and which indicates the location of the facility from which wastes are obtained, how identification and quantification of waste material is to be accomplished, and evidence that the wastes qualify as fully separated yard or food wastes. The producer must also maintain records regarding the source of the feedstock and the amounts obtained.

The second method would involve use as feedstock by a renewable fuel producer of the portion of MSW remaining after reasonably practical separation activities to remove recyclable materials, resulting in a separated MSW-derived residue that qualifies as separated yard and food waste. Today's rule requires that parties that intend to use MSW-derived residue as a feedstock for RIN-generating renewable fuel production ensure that reasonably practical efforts are made to separate recyclable paper, cardboard, textiles, plastics, metal and glass from the MSW, according to a plan that is submitted by the renewable fuel producer and approved by EPA under the registration procedures in 80.1450(b)(viii). In determining whether the plan submittals provide for reasonably practicable separation of recyclables EPA will consider: (1) The extent and nature of recycling that may have occurred prior to receipt of the MSW material by the renewable fuel producer, (2) available recycling technology and practices, and (3) the technology or practices selected by the fuel producer, including an explanation for such selection and reasons why other technologies or practices were not selected. EPA asks that any CBI accompanying a plan or a party's justification for a plan be segregated from the non-CBI portions of the submissions, so as to facilitate disclosure of the non-CBI portion of plan submittals, and approved plans, to interested members of the public.

Producers using this second option, will need to determine what RINs to assign to a fuel that is derived from a variety of materials, including yard waste (largely cellulosic) and food waste (largely starches and sugar), as well as incidental materials remaining after reasonably practical separation efforts such as plastic and rubber of fossil origin. EPA has not yet evaluated the lifecycle greenhouse gas performance of fuel made from such mixed sources of waste, so is unable at this time to assign a D code for such fuel. However, if a producer uses ASTM test method D–6866 on the fuel made from MSW-derived feedstock, it can determine what portion of the rule is of fossil and non-fossil origin. The non-fossil portion of the fuel will likely be largely derived from cellulosic materials (yard waste, textiles, paper, and construction materials), and to a much smaller extent starch-based materials (food wastes). Unfortunately, EPA is not aware of a test method that is able to distinguish between cellulosic- and starch-derived renewable fuel. Under these circumstances, EPA believes that it is appropriate for producers to base RIN assignment on the predominant component and, therefore, to assume that the biogenic portion of their fuel is entirely of cellulosic origin. The non-biogenic portion of the fuel, however, would not qualify for RINs at this time. Thus, in sum, we are providing via the ASTM testing method an opportunity for producers using an MSW-derived feedstock to generate RINs only for the biogenic portion of their renewable fuel. There is no D code for the remaining fossil-derived fraction of the fuel in today's rule nor for the entire volume of renewable fuel produced when using MSW-derived residue as a feedstock. The petition process for assigning such codes in today's rule can be used for such purpose.

Procedures for the use of ASTM Method D–6866 are detailed in 40 CFR 80.1426(f)(9) of today's rule. We solicited comment on this method, and while the context of the discussion of method D–6866 was with respect to using it for gasoline (see 74 FR 24951), the comments we received provided us information on the method itself. Also, commenters were supportive of its use. Fuel producers must either run the ASTM D–6866 method for each batch of fuel produced, or run it on composite samples of the food and yard waste-derived fuel derived from post-recycling MSW residues. Producers will be required at a minimum to take samples of every batch of fuel produced over the course of one month and combine them into a single composite sample. The D–6866 test would then be applied to the composite sample, and the resulting non-fossil derived fraction will be deemed cellulosic biofuel, and applied to all batches of fuel produced in the next month to determine the appropriate number of RINs that must be generated. The producer would be required to recalculate this fraction at least monthly. For the first month, the producer can estimate the non-fossil fraction, and then make a correction as needed in the second month. (The procedure using the ASTM D–6866 method applies not only to the waste-derived fuel discussed here but also to all partially renewable transportation fuels, and is discussed in further detail in Section II.D.4. See also the regulations at § 80.1426(f)(4)).

The procedures for assigning D codes to the fuel produced from such wastes are discussed in further detail in Section II.D.5.

One commenter suggested that biogas from landfills should be treated in the same manner as renewable fuel produced from MSW. EPA agrees with the commenter to a certain extent. The definition of "advanced biofuels" in EISA identifies "Biogas (including landfill gas and sewage waste treatment gas) produced through the conversion of organic matter from renewable biomass" as "eligible for consideration" as an advanced biofuel. However, as with MSW, the statute requires that advanced biofuel be a "renewable fuel" and that such fuel be made from "renewable biomass." The closest reference within the definition of renewable biomass to landfill material is "separated yard or food waste." However, in applying the interpretation of "separated" yard and food waste described above for MSW to landfill material, we come to a different result. Landfill material has by design been put out of practical human reach. It has been disposed of in locations, and in a manner, that is designed to be permanent. For example, modern landfills are placed over impermeable liners and sealed with a permanent cap. In addition, the food and yard waste present in a landfill has over time become intermingled with other

materials to an extraordinary extent. This occurs in the process of waste collection, shipment, and disposal, and subsequently through waste decay, leaching and movement within the landfill. Additionally, we note that the process of biogas formation in a landfill provides some element of separation, in that it is formed only from the biogenic components of landfill material, including but not strictly limited to food and yard waste. Thus, plastics, metal and glass are effectively "separated" out through the process of biogas formation. As a result of the intermixing of wastes, the fact that biogas is formed only from the biogenic portion of landfill material, and the fact that landfill material is as a practical matter inaccessible for further separation, EPA believes that no further practical separation is possible for landfill material and biogas should be considered as produced from separated yard and food waste for purposes of EISA. Therefore, all biogas from landfills is eligible for RIN generation.

We have considered whether to require biogas producers to use ASTM Method D–6866 to identify the biogenic versus non-biogenic fractions of the fuel. However, as noted above, biogas is not formed from non-biogenic compounds in landfills. (Kaplan, *et al.,* 2009) [9] Thus, no purpose would be solved in using the ASTM method in the biogas context.

C. Expanded Registration Process for Producers and Importers

In order to implement and enforce the new restrictions on qualifying renewable fuel under RFS2, we are revising the registration process for renewable fuel producers and importers. Under the RFS1 program, all producers and importers of renewable fuel who produce or import more than 10,000 gallons of fuel annually must register with EPA's fuels program prior to generating RINs. Renewable fuel producer and importer registration under the RFS1 program consists of filling out two forms: 3520–20A (Fuels Programs Company/Entity Registration), which requires basic contact information for the company and basic business activity information and 3520–20B (Gasoline Programs Facility Registration) or 3520–20B1 (Diesel Programs Facility Registration), which require basic contact information for each facility owned by the producer or importer. More detailed information on the renewable fuel production facility, such as production capacity and process, feedstocks, and products was not required for most producers or importers to generate RINs under RFS1 (producers of cellulosic biomass ethanol and waste-derived ethanol are the exception to this).

Additionally, EPA recommends companies register their renewable fuels or fuel additives under title 40 CFR part 79 as a motor vehicle fuel. In fact, renewable fuels intended for use in motor vehicles will be required to be registered under title 40 CFR part 79 prior to any introduction into commerce. Manufacturers and subsequent parties of fuels and fuel additives not registered under part 79 will be liable for separate penalties under 40 CFR parts 79 and 80 in the event their unregistered product is introduced into commerce for use in a motor vehicle. Further if a registered fuel or fuel additive is used in manner that is not consistent with their product's registration under part 79 the manufacturer and subsequent parties will be liable for penalties under parts 79 and 80. If EPA determines based on the company's registration that they are not producing renewable fuel, the company will not be able to generate RINs and the RINs generated for fuel produced from nonrenewable sources will be invalidated.

Due to the revised definitions of renewable fuel under EISA, we proposed to expand the registration process for renewable fuel producers and importers in order to implement the new program effectively. We received a number of comments that opposed the expanded registration as commenters deemed it overly burdensome, costly and unnecessary. However, EPA is finalizing the proposed expanded registration requirements for the following reasons. The information to be collected through the expanded registration process is essential to generating and assigning a certain category of RIN to a volume of fuel. Additionally, the information collected is essential to determining whether the feedstock used to produce the fuel meets the definition of renewable biomass, whether the lifecycle greenhouse gas emissions of the fuel meets a certain GHG reduction threshold and, in some cases, whether the renewable fuel production facility is considered to be grandfathered into the program. Therefore, we are requiring producers, including foreign producers, and importers that generate RINs to provide us with information on their feedstocks, facilities, and products, in order to implement and enforce the program and have confidence that producers and importers are properly categorizing their fuel and generating RINs. The registration procedures will be integrated with the new EPA Moderated Transaction System, discussed in detail in Section III.A of this preamble.

1. Domestic Renewable Fuel Producers

Information on products, feedstocks, and facilities contained in a producer's registration will be used to verify the validity of RINs generated and their proper categorization as either cellulosic biofuel, biomass-based diesel, advanced biofuel, or other renewable fuel. In addition, producers of renewable fuel from facilities that qualify for the exemption from the 20% GHG reduction threshold (as discussed in Section II.B.3) must provide information that demonstrates when the facility commenced construction, and that establishes the baseline volume of the fuel. For those facilities that would qualify as grandfathered but are not in operation we are allowing until May 1, 2013 to submit and receive approval for a complete facility registration. This provision does not require actual fuel production, but simply the filing of registration materials that assert a claim for exempt status. It will benefit both fuel producers, who will likely be able to more readily collect the required information if it is done promptly, and EPA enforcement personnel seeking to verify the information. However, given the potentially significant implications of this requirement for facilities that may qualify for the exemption but miss the registration deadline, the rule also provides that EPA may waive the requirement if it determines that the submission is verifiable to the same extent as a timely-submitted registration.

With respect to products, we are requiring that producers provide information on the types of renewable fuel and co-products that a facility is capable of producing. With respect to feedstocks, we are requiring producers to provide to EPA a list of all the different feedstocks that a renewable fuel producer's facility is likely to use to convert into renewable fuel. With respect to the producer's facilities, two types of information must be reported to the Agency. First, producers must describe each facility's fuel production processes (*e.g.,* wet mill, dry mill, thermochemical, etc.), and thermal/process energy source(s). Second, in order to determine what production volumes would be grandfathered and

[9] Kaplan, *et al.* (2009). "Is it Better to Burn or Bury Waste for Clean Electricity Generation?" *Environmental Science & Technology* 2009 *43*(6), 1711–1717 (Found in Table S1 of supplemental material to the article, at *http://pubs.acs.org/doi/suppl/10.1021/es802395e/suppl_file/es802395e_si_001.pdf*).

thus deemed to be in compliance with the 20% GHG threshold, we are requiring evidence and certification of the facility's qualification under the definition of "commence construction" as well as information necessary to establish its renewable fuel baseline volume per the requirement outlined in Section II.B.3 of this preamble.

EPA proposed to require that renewable fuel producers have a third-party engineering review of their facilities prior to generating RINs under RFS2, and every 3 years thereafter. EPA received comments that the on-site engineering review was overly burdensome, unnecessary and costly. A number of commenters noted that the time allotted for conducting the reviews, between the rule's publication and prior to RIN generation, is not adequate for producers to hire an engineer and conduct the review for all of their facilities. Several commenters requested that on-site licensed engineers be allowed to conduct any necessary facility reviews.

EPA is finalizing the proposed requirement for an on-site engineering review of facilities producing renewable fuel due to the variability of production facilities, the increase in the number of categories of renewable fuels, and the importance of ensuring that RINs are generated in the correct category. Without these engineering reviews, we do not believe it would be possible to implement the RFS2 program in a manner that ensured the requirements of EISA were being fulfilled. Additionally, the engineering review provides a check against fraudulent RIN generation. In order to establish the proper basis for RIN generation, we are requiring that every renewable fuel producer have the on-site engineering review of their facility performed in conjunction with his or her initial registration for the new RFS program. The engineering reviews must be conducted by independent third parties who can maintain impartiality and objectivity in evaluating the facilities and their processes. Additionally, the on-site engineering review must be conducted every three years thereafter to verify that the fuel pathways established in the initial registration are still applicable. These requirements apply unless the renewable fuel producer updates its facility registration information to qualify for a new RIN category (i.e., D code), in which case the review needs to be performed within 60 days of the registration update. Finally, producers are required to submit a copy of their independent engineering review to EPA, for verification and enforcement purposes.

2. Foreign Renewable Fuel Producers

Under RFS1, foreign renewable fuel producers of cellulosic biomass ethanol and waste-derived ethanol may apply to EPA to generate RINs for their own fuel. For RFS2, we proposed that foreign producers of renewable fuel meet the same requirements as domestic producers, including registering information about their feedstocks, facilities, and products, as well as submitting an on-site independent engineering review of their facilities at the time of registration for the program and every three years thereafter. These requirements apply to all foreign renewable fuel producers who plan to export their products to the U.S. as part of the RFS2 program, whether the foreign producer generates RINs for their fuel or an importer does.

Foreign producers, like domestic producers, must also undergo an independent engineering review of their facilities, conducted by an independent third party who is a licensed professional engineer (P.E.), or foreign equivalent who works in the chemical engineering field. The independent third party must provide to EPA documentation of his or her qualifications as part of the engineering review, including proof of appropriate P.E. license or foreign equivalent. The third-party engineering review must be conducted by both foreign producers who plan to generate RINs and those that don't generate RINs but anticipate their fuel will be exported to the United States by an importer who will generate the RINs.

3. Renewable Fuel Importers

We are requiring importers who generate RINs for imported fuel that they receive without RINs may only do so under certain circumstances. If an importer receives fuel without RINs, the importer may only generate RINs for that fuel if they can verify the fuel pathway and that feedstocks use meet the definition of renewable biomass. An importer must rely on his supplier, a foreign renewable fuel producer, to provide documentation to support any claims for their decision to generate RINs. An importer may have an agreement with a foreign renewable fuel producer for the importer to generate RINs if the foreign producer has not done so already. However, the foreign renewable fuel producer must be registered with EPA and must have had a third-party engineering review conducted, as noted above, in order for EPA to be able to verify that the renewable biomass and GHG reduction requirements of EISA are being fulfilled. Section II.D.2.b describes the RIN generating restrictions and requirements for importers under RFS2.

4. Process and Timing

We are making forms for expanded registration for renewable fuel producers and importers, as well as forms for registration of other regulated parties, available electronically with the publication of this final rule. Paper registration forms will only be accepted in exceptional cases. Registration forms must be submitted and accepted by the EPA by July 1, 2010, or 60 days prior to a producer producing or importer importing any renewable fuel, whichever dates come later. If a producer changes its fuel pathway (feedstock, production process, or fuel type) to not listed in his registration information on file with EPA but the change will not incur a change of RIN category for the fuel (i.e., a change in the appropriate D code), the producer must update his registration information within seven (7) days of the change. However, if the fuel producer changes its fuel pathway in a manner that would result in a change in its RIN category (and thus a new D code), such an update would need to be submitted at least 60 days prior to the change, followed by submittal of a complete on-site independent engineering review of the producer's facility also within 60 days of the change. If EPA finds that these deadlines and requirements have not been met, or that a facility's registered profile, dictated by the various parameters for product, process and feedstock, does not reflect actual products produced, processes employed, or feedstocks used, then EPA reserves the right to void, ab initio, any affected RINs generated and may impose significant penalties. For example a newly registered (i.e. not grandfathered) ethanol production facility claims in their registration that they qualify to generate RINs based upon the use of two advanced engineering practices (1) corn oil fractionation and (2) production of wet DGS co-product that is, at a minimum, 35% of its total DGS produced annually. However, during an audit of the producer's records, it is found that of all their DGS produced, less than 15% was wet. In this example, the producer has committed a violation that results in the disqualification of their eligibility to generate RINs; that is, they no longer have an eligible pathway that demonstrates qualification with the 20% GHG threshold requirement for corn ethanol producers. As such any and all RINs produced may be deemed invalid and the producer may be subject to Clean Air Act penalties.

The required independent engineering review as discussed above for domestic and foreign renewable fuel producers is an integral part of the registration process. The agency recognizes, through comments received, that there are significant concerns involving timing necessary and ability to produce a completed engineering review to satisfy registration requirements. Since the publication of the RFS2 NPRM, we have delivered consistently a message stating that advanced planning and preparation was necessary from all parties, EPA and the regulated community inclusive, for successful implementation of this program. In an effort to reduce demand on engineering resources, we are allowing grandfathered facilities an additional six months to submit their engineering review. This will direct the focus of engineering review resources on producers of advanced, cellulosic and biomass based diesel. EPA fully expects these producers of advanced renewable fuels to meet the engineering review requirement; however, if they are having difficulties producing engineer's reports prior to April 1, we ask that they contact us.

D. Generation of RINs

Under RFS2, each RIN will continue to be generated by the producer or importer of the renewable fuel, as in the RFS1 program. In order to determine the number of RINs that must be generated and assigned to a batch of renewable fuel, the actual volume of the batch of renewable fuel must be multiplied by the appropriate Equivalence Value. The producer or importer must also determine the appropriate D code to assign to the RIN to identify which of the four standards the RIN can be used to meet. This section describes these two aspects of the generation of RINs. Other aspects of the generation of RINs, such as the definition of a batch, as well as the assignment of RINs to batches, will remain unchanged from the RFS1 requirements. We received several comments regarding the method for calculating temperature standardization of biodiesel and address this issue in Section III.G.

1. Equivalence Values

For RFS1, we interpreted CAA section 211(o) as allowing us to develop Equivalence Values representing the number of gallons that can be claimed for compliance purposes for every physical gallon of renewable fuel. We described how the use of Equivalence Values adjusted for renewable content and based on energy content in comparison to the energy content of ethanol was consistent with the sections of EPAct that provided extra credit for cellulosic and waste-derived renewable fuels, and the direction that EPA establish "appropriate" credit for biodiesel and renewable fuel volumes in excess of the mandated volumes. We also noted that the use of Equivalence Values based on energy content was an appropriate measure of the extent to which a renewable fuel would replace or reduce the quantity of petroleum or other fossil fuel present in a fuel mixture. EPA stated that these provisions indicated that Congress did not intend to restrict EPA discretion in implementing the program to utilizing a straight volume measurement of gallons. *See* 72 FR 23918–23920, and 71 FR 55570–55571. The result was an Equivalence Value for ethanol of 1.0, for butanol of 1.3, for biodiesel (mono alkyl ester) of 1.5, and for non-ester renewable diesel of 1.7.

In the NPRM we noted that EISA made a number of changes to CAA section 211(o) that impacted our consideration of Equivalence Values in the context of the RFS2 program. For instance, EISA eliminated the 2.5-to-1 credit for cellulosic biomass ethanol and waste-derived ethanol and replaced this provision with large mandated volumes of cellulosic biofuel and advanced biofuels. EISA also expanded the program to include four separate categories of renewable fuel (cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel) and included GHG thresholds in the definitions of each category. Each of these categories of renewable fuel has its own volume requirement, and thus there will exist a guaranteed market for each. As a result of these new requirements, we indicated that there may no longer be a need for additional incentives for certain fuels in the form of Equivalence Values greater than 1.0.

In the NPRM we co-proposed and took comment on two options for Equivalence Values:

1. Equivalence Values would be based on the energy content and renewable content of each renewable fuel in comparison to denatured ethanol, consistent with the approach under RFS1, with the addition that biomass-based diesel standard would be based on energy content in comparison to biodiesel.

2. All liquid renewable fuels would be counted strictly on the basis of their measured volumes, and the Equivalence Values for all renewable fuels would be 1.0 (essentially, Equivalence Values would no longer apply).

In response to the NPRM, some stakeholders pointed to the aforementioned changes brought about by EISA as support for a straight volume approach to Equivalence Values, and argued that it had always been the intent of Congress that the statutory volume mandates be treated as straight volumes. Stakeholders taking this position were generally producers of corn ethanol. However, a broad group of other stakeholders including refiners, biodiesel producers, a broad group of advanced biofuel producers, fuel distributor and States indicated that the first option for an energy-based approach to Equivalence Values was both supported by the statute and necessary to provide for equitable treatment of advanced biofuels. They noted that EISA did not change certain of the statutory provisions EPA looked to for support under RFS1 in establishing Equivalence Values based on relative volumetric energy content in comparison to ethanol. For instance, CAA 211(o) continues to direct EPA to determine an "appropriate" credit for biodiesel, and also directs EPA to determine the "appropriate" amount of credit for renewable fuel use in excess of the required volumes. Had Congress intended to change these provisions they could have easily done so. Moreover, some stakeholders argued that the existence of four standards is not a sufficient reason to eliminate the use of energy-based Equivalence Values for RFS2. The four categories are defined in such a way that a variety of different types of renewable fuel could qualify for each category, such that no single specific type of renewable fuel will have a guaranteed market. For example, the cellulosic biofuel requirement could be met with both cellulosic ethanol or cellulosic diesel. As a result, the existence of four standards under RFS2 does not obviate the value of standardizing for energy content, which provides a level playing field under RFS1 for various types of renewable fuels based on energy content.

Some stakeholders who supported an energy-based approach to Equivalence Values also argued that a straight volume approach would be likely to create a disincentive for the development of new renewable fuels that have a higher energy content than ethanol. For a given mass of feedstock, the volume of renewable fuel that can be produced is roughly inversely proportional to its energy content. For instance, one ton of biomass could be gasified and converted to syngas, which could then be catalytically reformed into either 80 gallons of ethanol (and another 14 gal of other alcohols) or 50

gallons of diesel fuel (and naphtha).[10] If RINs were assigned on a straight volume basis, the producer could maximize the number of RINs he is able to generate and sell by producing ethanol instead of diesel. Thus, even if the market would otherwise lean towards demanding greater volumes of diesel, the greater RIN value for producing ethanol may favor their production instead. However, if the energy-based Equivalence Values were maintained, the producer could assign 1.7 RINs to each gallon of diesel made from biomass in comparison to 1.0 RIN to each gallon of ethanol from biomass, and the total number of RINs generated would be essentially the same for the diesel as it would be for the ethanol. The use of energy-based Equivalence Values could thus provide a level playing field in terms of the RFS program's incentives to produce different types of renewable fuel from the available feedstocks. The market would then be free to choose the most appropriate renewable fuels without any bias imposed by the RFS regulations, and the costs imposed on different types of renewable fuel through the assignment of RINs would be more evenly aligned with the ability of those fuels to power vehicles and engines, and displace fossil fuel-based gasoline or diesel. Since the technologies for producing more energy-dense fuels such as cellulosic diesel are still in the early stages of development, they may benefit from not having to overcome the disincentive in the form of the same Equivalence Value based on straight volume.

Based on our interpretation of EISA as allowing the use of energy-based Equivalence Values, and because we believe it provides a level playing field for the development of different fuels that can displace the use of fossil fuels, and that this approach therefore furthers the energy independence goals of EISA, we are finalizing the energy-based approach to Equivalence Values in today's action. We also note that a large number of companies have already made investments based on the decisions made for RFS1, and using energy-based Equivalence Values will maintain consistency with RFS1 and ease the transition into RFS2. Insofar as renewable fuels with volumetric energy contents higher than ethanol are used, the actual volumes of renewable fuel that are necessary to meet the EISA volume mandates will be smaller than those shown in Table I.A.1–1. The impact on the physical volume will depend on actual volumes of various advanced biofuels produced in the future. The main scenario modeled for this final rule includes a forecast for considerable volumes of relatively high energy diesel fuel made from renewable biomass, and still results in a physical volume mandate of 30.5 billion gallons. The energy-based approach results in the advanced biofuel standard being automatically met during the first few years of the program. For instance, the biomass-based diesel mandated volume for 2010 is 0.65 billion gallons, which will be treated as 0.975 billion gallons (1.5×0.65) in the context of meeting the advanced biofuel standard. Since the mandated volume for advanced biofuel in 2010 is 0.95 billion gallons, this requirement is automatically met by compliance with the biomass-based diesel standard.

Although we are finalizing an energy-based approach to Equivalence Values, we believe that Congress intended the biomass-based diesel volume mandate to be treated as diesel volumes rather than as ethanol-equivalent volumes. Since all RINs are generated based on energy equivalency to ethanol, to accomplish this, we have modified the formula for calculating the standard for biomass-based diesel to compensate such that one physical gallon of biomass-based diesel will count as one gallon for purposes of meeting the biomass-based diesel standard, but will be counted based on their Equivalence Value for purposes of meeting the advanced biofuel and total renewable fuel standards. Since it is likely that the statutory volume mandates were based on projections for biodiesel, we have chosen to use the Equivalence Value for biodiesel, 1.5, in this calculation. See Section II.E.1.a for further discussion. Other diesel fuel made from renewable biomass can also qualify as biomass-based diesel (e.g., renewable diesel, cellulosic diesel). But since the variation in energy content between them is relatively small, variation in the total physical volume of biomass-based diesel will likewise be small.

In the NPRM we also proposed that the energy content of denatured ethanol be changed from the 77,550 Btu/gal value used in the RFS1 program to 77,930 Btu/gal (lower heating value). The revised value was intended to provide a more accurate estimate of the energy content of pure ethanol, 76,400 Btu/gal, rather than the rounded value of 76,000 Btu/gal that was used under RFS1. Except for the Renewable Fuels Association who supported this change, most stakeholders did not comment on this proposal. However, based on new provisions in the Food, Conservation, and Energy Act of 2008, we have since determined that the denaturant content of ethanol should be assumed to be 2% rather than the 5% used in the RFS1 program. This additional change results in a denatured ethanol energy content of 77,000 Btu/gal and a renewable content of denatured ethanol of 97.2%.[11] The value of 77,000 Btu/gal will be used to convert biogas and renewable electricity into volumes of renewable fuel under RFS2. This change also affects the formula for calculating Equivalence Values assigned to renewable fuels. The new formula is shown below:

$$EV = (R/0.972) * (EC/77{,}000)$$

Where:

EV = Equivalence Value for the renewable fuel, rounded to the nearest tenth.

R = Renewable content of the renewable fuel. This is a measure of the portion of a renewable fuel that came from a renewable source, expressed as a percent, on an energy basis.

EC = Energy content of the renewable fuel, in Btu per gallon (lower heating value).

Under this new formula, Equivalence Values assigned to specific types of renewable fuel under RFS1 will continue unchanged under RFS2. However, non-ester renewable diesel will be required to have a lower energy content of at least 123,500 Btu/gal in order to qualify for an Equivalence Value of 1.7. A non-ester renewable diesel with a lower energy content would be required to apply for a different Equivalent Value according to the provisions in § 80.1415.

2. Fuel Pathways and Assignment of D Codes

As described in Section II.A, RINs under RFS2 would in general continue to have the same number of digits and code definitions as under RFS1. The one change will be that, while the D code will continue to identify the standard to which the RIN can be applied, it will be modified to have four values corresponding to the four different renewable fuel categories defined in EISA. These four D code values and the corresponding categories are shown in Table II.A–1.

In order to generate RINs for renewable fuel that meets the various eligibility requirements (*see* Section II.B), a producer or importer must know which D code to assign to those RINs. Following the approach we described in the NPRM, a producer or importer will determine the appropriate D code using a lookup table in the regulations. The

[10] Another example would be a fermentation process in which one ton of cellulose could be used to produce either 70 gallons of ethanol or 55 gallons of butanol.

[11] Value is lower than 98% because it is based on energy content of denaturant versus ethanol, not relative volume.

lookup table lists various combinations of fuel type, production process, and feedstock, and the producer or importer chooses the appropriate combination representing the fuel he is producing and for which he is generating RINs. Parties generating RINs are required to use the D code specified in the lookup table and are not permitted to use a D code representing a broader renewable fuel category. For example, a party whose fuel qualified as biomass-based diesel could not choose to categorize that fuel as advanced biofuel or general renewable fuel for purposes of RIN generation.[12]

This section describes our approach to the assignment of D codes to RINs for domestic producers, foreign producers, and importers of renewable fuel. Subsequent sections address the generation of RINs in special circumstances, such as when a production facility has multiple applicable combinations of feedstock, fuel type, and production process within a calendar year, production facilities that co-process renewable biomass and fossil fuels, and production facilities for which the lookup table does not provide an applicable D code.

a. Producers

For both domestic and foreign producers of renewable fuel, the lookup table identifies individual fuel "pathways" comprised of unique combinations of the type of renewable fuel being produced, the feedstock used to produce the renewable fuel, and a description of the production process. Each pathway is assigned to one of the D codes on the basis of the revised renewable fuel definitions provided in EISA and our assessment of the GHG lifecycle performance for that pathway. A description of the lifecycle assessment of each fuel pathway and the process we used for determining the associated D code can be found in Section V.

Note that the generation of RINs also requires as a prerequisite that the feedstocks used to make the renewable fuel meet the definition of "renewable biomass" as described in Section II.B.4, including applicable land use restrictions. If a producer is not able to demonstrate that his feedstocks meet the definition of renewable biomass, RINs cannot be generated. However, as noted in Section II.B.4.b.1, feedstocks typically include incidental contaminants. These contaminants may have been intentionally added to promote cultivation (*e.g.,* pesticides, herbicides, fertilizer) or transport (*e.g.,* nylon baling rope). In addition, there may be some incidental contamination of a particular load of feedstocks with co-product during feedstock production, or with other agricultural materials during shipping. For example, there may be incidental corn kernels remaining on some corn cobs used to produce cellulosic biofuel, or some sorghum kernels left in a shipping container that are introduced into a load of corn kernels being shipped to a biofuel production facility. The final regulations clarify that in assigning D codes for renewable fuel, producers and importers should disregard the presence of incidental contaminants in their feedstocks if the incidental contaminants are related to customary feedstock production and transport, and are impractical to remove and occur in de minimus levels.

Through our assessment of the lifecycle GHG impacts of different pathways and the application of the EISA definitions for each of the four categories of renewable fuel, including the GHG thresholds, we have determined that all four categories will have pathways that could be used to meet the Act's volume requirements. For example, ethanol made from corn stover or switchgrass in an enzymatic hydrolysis process will count as cellulosic biofuel. Biodiesel made from waste grease or soybean oil can count as biomass-based diesel. Ethanol made from sugarcane sugar will count as advanced biofuel. Finally, a variety of pathways will count as renewable fuel under the RFS2 program. The complete list of pathways that are valid under our final RFS2 program is discussed in Section V.C and are provided in the regulations at § 80.1426(f).

Producers must choose the appropriate D code from the lookup table in the regulations based on the fuel pathway that describes their facility. The fuel pathway must be specified by the producer in the registration process as described in Section II.C. If there are changes to a producer's facility or feedstock such that their fuel would require a D code that was different from any D code(s) which their existing registration information already allowed, the producer is required to revise its registration information with EPA 30 days prior to changing the applicable D code it uses to generate RINs. Situations in which multiple fuel pathways could apply to a single facility are addressed in Section II.D.3 below.

For producers for whom none of the defined fuel pathways in the lookup table apply, a producer can still generate RINs if he meets the criteria for grandfathered or deemed compliant status as described in Section II.B.3 and his fuel meets the definition of renewable fuel as described in Section II.B.1. In this case he would use a D code of 6 for those RINs generated under the grandfathering or deemed compliant provisions.

A diesel fuel product produced from cellulosic feedstocks that meets the 60% GHG threshold can qualify as either cellulosic biofuel or biomass-based diesel. In the NPRM, we proposed that the producer of such "cellulosic diesel" be required to choose whether to categorize his product as either cellulosic biofuel or biomass-based diesel. However, we requested comment on an alternative approach in which an additional D code would be defined to represent cellulosic diesel allowing the cellulosic diesel RIN to be sold into either market. As described more fully in Section II.A above, we are finalizing this alternative approach in today's final rule. Producers or importers of a fuel that qualifies as both biomass-based diesel and cellulosic biofuel must use a D code of 7 in the RINs they generate, and will thus have the flexibility of marketing such RINs to parties seeking either cellulosic biofuel or biomass-based diesel RINs, depending on market demand. Obligated parties can apply RINs with a D code of 7 to either their cellulosic biofuel or biomass-based diesel RVOs, but not both.

In addition to the above comments, we received comments requesting that the use of biogas as process heat in the production of ethanol, should not be limited to use at the site of renewable fuel production. Specifically, commenters point out that the introduction of gas produced from landfills or animal wastes to fungible pipelines is the only practical manner for most renewable fuel facilities to acquire and use landfill gas, since very few are located adjacent to landfills, or have dedicated pipelines from landfill gas operations to their facilities.[13] The commenters suggested that ethanol plants causing landfill gas to be introduced into a fungible gas pipeline be allowed to claim those volumes. The alternative would be to allow landfill

[12] However, a biomass-based diesel RIN can be used to satisfy Renewable Volume Obligations (RVO) for biomass-based diesel, advanced biofuel, and total renewable fuel. *See* Section II.G.3 for further discussion of the use of RINs for compliance purposes.

[13] This suggestion was also made by several companies with respect to the RFS1 definition of cellulosic biomass ethanol, which allowed corn-based ethanol to be deemed cellulosic if 90% of the fossil fuel used at the ethanol facility to make ethanol was displaced by fuel derived from animal or other waste materials, including landfill gas.

gas that is only used onsite to be counted in establishing the pathway.

We believe that the suggested approach has merit. We agree that it does not make any difference in terms of the beneficial environmental attributes associated with the use of landfill gas whether the displacement of fossil fuel occurs in a fungible natural gas pipeline, or in a specific facility that draws gas volume from that pipeline. In fact, a similar approach is widely used with respect to electricity generated by renewable biomass that is placed into a commercial electricity grid. A party buying the renewable power is credited with doing so in state renewable portfolio programs even though the power from these sources is placed in the fungible grid and the electrons produced by a renewable source may never actually be used by the party purchasing it. In essence these programs assume that the renewable power purchased and introduced into the grid is in fact used by the purchaser, even though all parties acknowledge that use of the actual renewable-derived electrons can never be verified once placed in the fungible grid. We believe that this approach will ultimately further the GHG reduction and energy security goals of RFS2.

Producers may therefore take into account such displacement provided that they demonstrate that a verifiable contractual pathway exists and that such pathway ensures that (1) a specific volume of landfill gas was placed into a commercial pipeline that ultimately serves the transportation fueling facility and (2) that the drawn into this facility from that pipeline matches the volume of landfill gas placed into the pipeline system. Thus facilities using such a fuel pathway may then use an appropriate D code for generation of RINs.

This approach also applies to biogas and electricity made from renewable fuels and which are used for transportation. Producers of such fuel will be able to generate RINs, provided that a contractual pathway exists that provides evidence that specific quantities of the renewable fuel (either biogas or electricity) was purchased and contracted to be delivered to a specific transportation fueling facility.[14] We specify that the pipeline (or transmission line) system must ultimately serve the subject facility. For electricity that is produced by the co-firing of fossil fuels with renewable biomass derived fuels, we are requiring that the resulting electricity is pro-rated to represent only that amount of electricity generated by the qualifying biogas, for the purpose of computing RINs.

We are also providing for those situations in which biogas or renewable electricity is provided directly to the transportation facility, rather than using a commercial distribution system such as pipelines or transmission lines. For both cases—dedicated use and commercial distribution—producers must provide contractual evidence of the production and sale of such fuel, and there are also reporting and recordkeeping requirements to be followed as well.

Presently, there is no D code for electricity that is produced from renewable biomass. The petition process for assigning such codes in today's rule can be used for such purpose.

b. Importers

For imported renewable fuel under RFS2, we are anticipating the importer to be the primary party responsible for generating RINs. However, the foreign producer of renewable fuel can instead elect to generate RINs themselves under certain conditions as described more fully in Section II.D.2.c below. This approach is consistent with the approach under RFS1.

Under RFS1, importers who import more than 10,000 gallons in a calendar year were required to generate RINs for all imported renewable fuel based on its type, except for cases in which the foreign producer generated RINs for cellulosic biomass ethanol or waste-derived ethanol. Due to the new definitions of renewable fuel and renewable biomass in EISA, importers can no longer generate RINs under RFS2 on the basis of fuel type alone. Instead, they must be able to demonstrate that the renewable biomass definition has been met for the renewable fuel they intend to import and for which they will generate RINs. They must also have sufficient information about the feedstock and process used to make the renewable fuel to allow them to identify the appropriate D code from the lookup table for the RINs they generate. Therefore, in order to generate RINs, the importer will be required to obtain this information from a foreign producer. RINs can only be generated if a demonstration is made that the feedstocks used to produce the renewable fuel meet the definition of renewable biomass.

In summary, under today's final rule, importers can import any renewable fuel, but can only generate RINs to represent the imported renewable fuel under the two conditions described below. If these conditions do not apply, the importer can import biofuel but cannot generate RINs to represent that biofuel.

1. The imported renewable fuel is not accompanied by RINs generated by the registered foreign producer

2. The importer obtains from the foreign producer:

—Documentation demonstrating that the renewable biomass definition has been met for the volume of renewable fuel being imported.

—Documentation about the feedstock and production process used to produce the renewable fuel to allow the importer to determine the appropriate D-code designation in the RINs generated.

We are also finalizing additional requirements for foreign producers who either generate RINs or provide documentation to an importer sufficient to allow the importer to generate RINs. As described more fully in the next section, these additional requirements include restrictions on mixing of biofuels in the distribution system as it travels from the foreign producer to the importer.

Finally, EPA is assessing whether additional requirements on foreign-generated fuel may be necessary for situations in which importers are generating RINs for the fuel. Additional requirements may be necessary to ensure that the importers have sufficient information to properly generate the RINs and that EPA has sufficient information to determine whether those RINs have been legitimately generated. EPA will pursue an amendment to the final RFS2 regulations if we find that additional requirements are appropriate and necessary.

c. Additional Provisions for Foreign Producers

In general, we are requiring foreign producers of renewable fuel to meet the same requirements as domestic producers with respect to registration, recordkeeping and reporting, attest engagements, and the transfer of RINs they generate with the batches of renewable fuel that those RINs represent. However, we are also placing additional requirements on foreign producers to ensure that RINs entering the U.S. are valid and that the regulations can be enforced at foreign facilities. These additional requirements are designed to accommodate the more limited access that EPA enforcement personnel have to foreign entities that are regulated parties under RFS2, and also the fact that foreign-produced biofuel intended for export to the U.S. is often mixed with biofuel that will not be exported to the U.S.

[14] Note that biogas used for transportation fuel includes propane made from renewable biomass.

Under RFS1, foreign producers had the option of generating RINs for the renewable fuel that they export to the U.S. if they wanted to designate their fuel as cellulosic biomass ethanol or waste-derived ethanol, and thereby take advantage of the additional 1.5 credit value afforded by the 2.5 Equivalence Value for such products. In order to ensure that EPA had the ability to enforce the regulations relating to the generation of RINs from such foreign ethanol producers, the RFS1 regulations specified additional requirements for them, including posting a bond, admitting EPA enforcement personnel, and submitting to third-party engineering reviews of their production process. For RFS2, we are maintaining these additional requirements for foreign producers because EPA enforcement personnel have the same limitations under RFS2 with regard to access to foreign entities that are regulated parties as they did under RFS1.

EISA also creates other unique challenges in the implementation and enforcement of the renewable fuel standards for foreign-produced renewable fuel imported into the U.S. Unlike our other fuels programs, EPA cannot determine whether a particular shipment of renewable fuel is eligible to generate RINs under the new program by testing the fuel itself. Instead, information regarding the feedstock that was used to produce renewable fuel and the process by which it was produced is vital to determining the proper renewable fuel category and RIN type for the imported fuel under the RFS2 program. Thus, whether foreign producers or importers generate RINs, this information must be collected and maintained by the RIN generator.

If a foreign producer generates RINs for renewable fuel that it produces and exports to the U.S., we are requiring that ethanol must be dewatered and denatured by the foreign producer prior to leaving the production facility and prior to the generation of RINs. This is consistent with our definition of renewable fuel in which ethanol that is valid under RFS2 must be denatured. Moreover, the foreign producer is required to strictly segregate a batch of renewable fuel and its associated RINs from all other volumes of renewable fuel as it travels from the foreign producer to the importer. The strict segregation ensures that RINs entering the U.S. appropriately represent the renewable fuel imported into the U.S. both in terms of renewable fuel type and volume.

Several commenters requested that in general the importer be the RIN generator for imported renewable fuel. Since most imported ethanol is currently made in Brazil and is not denatured by the foreign producer, any RINs generated must be generated by the importer. However, to accomplish this, the importer must obtain the appropriate information from a foreign producer regarding compliance with the renewable biomass definition and a description of the associated pathway for the renewable fuel. Under these circumstances, the foreign producer must ensure that the information is transferred along with the renewable fuel through the distribution system until it reaches the importer. The foreign producer's volume of renewable fuel need not be strictly segregated from other volumes in this case, so long as a volume of chemically indistinguishable renewable fuel is tracked through the distribution system from the foreign producer to the importer, and the information needed by the importer to generate RINs follows this same path through the distribution system. Strict segregation of the volume is not necessary in this case, and the importer will determine appropriate number of RINs for the specific volume and type of renewable fuel that he imports.

Finally, if a foreign producer chooses not to participate in the RFS2 program and thus neither generates RINs nor provides information to the importer so that the importer can generate RINs, the foreign producer can still export biofuel to the U.S. However, under these circumstances the biofuel would not be renewable fuel under RFS2, no RINs could be generated by any party, and thus the foreign producer would not be subject to any of the registration, recordkeeping, reporting, or attest engagement requirements.

3. Facilities With Multiple Applicable Pathways

If a given facility's operations can be fully represented by a single pathway, then a single D code taken from the lookup table will be applicable to all RINs generated for fuel produced at that facility. However, we recognize that this will not always be the case. Some facilities use multiple feedstocks at the same time, or switch between different feedstocks over the course of a year. A facility may be modified to produce the same fuel but with a different process, or may be modified to produce a different type of fuel. Any of these situations could result in multiple pathways being applicable to a facility, and thus there may be more than one applicable D code for various RINs generated at the facility.

If more than one pathway applies to a facility within a compliance period, no special steps will need to be taken if the D code is the same for all the applicable pathways. In this case, all RINs generated at the facility will have the same D code regardless. Such a producer with multiple applicable pathways must still describe its feedstock(s), fuel type(s), and production process(es) in its initial registration and annual report to the Agency so that we can verify that the D code used was appropriate.

However, if more than one pathway applies to a facility within a compliance period and these pathways have been assigned different D codes, then the producer must determine which D codes to use when generating RINs. There are a number of different ways that this could occur. For instance, a producer could change feedstocks, production processes, or the type of fuel he produces in the middle of a compliance period. Or, he could use more than one feedstock or produce more than one fuel type simultaneously. The approach we are finalizing for designating D codes for RINs in these cases follows the approach described in the NPRM and is summarized in Table II.D.3–1.

TABLE II.D.3–1—APPROACH TO ASSIGNING MULTIPLE D CODES FOR MULTIPLE APPLICABLE PATHWAYS

Case/Description	Proposed approach
1. The pathway applicable to a facility changes on a specific date, such that one single pathway applies before the date and another single pathway applies on and after the date.	The applicable D code used in generating RINs must change on the date that the fuel produced changes pathways.
2. One facility produces two or more different types of renewable fuel at the same time.	The volumes of the different types of renewable fuel should be measured separately, with different D codes applied to the separate volumes.

TABLE II.D.3–1—APPROACH TO ASSIGNING MULTIPLE D CODES FOR MULTIPLE APPLICABLE PATHWAYS—Continued

Case/Description	Proposed approach
3. One facility uses two or more different feedstocks at the same time to produce a single type of renewable fuel.	For any given batch of renewable fuel, the producer should assign the applicable D codes using a ratio (explained below) defined by the amount of each type of feedstock used.

Commenters were generally supportive of this approach to multiple applicable pathways, and as a result we are finalizing it with few modifications from the proposal. Further discussion of the comments we received can be found in Section 3.5.4 of the S&A document.

Following our proposal, cases listed in Table II.D.3–1 will be treated as hierarchical, with Case 2 only being used to address a facility's circumstances if Case 1 is not applicable, and Case 3 only being used to address a facility's circumstances if Case 2 is not applicable. This approach covers all likely cases in which multiple applicable pathways may apply to a renewable fuel producer. Some examples of how Case 2 or 3 would apply are provided in the NPRM.

A facility where two or more different types of feedstock are used to produce a single fuel (such as Case 3 in Table II.D.3–1) will be required to generate two or more separate batch-RINs [15] for a single volume of renewable fuel, and these separate batch-RINs will have different D codes. The D codes will be chosen on the basis of the different pathways as defined in the lookup table in § 80.1426(f). The number of gallon-RINs that will be included in each of the batch-RINs will depend on the relative amount of the different types of feedstocks used by the facility. In the NPRM, we proposed to use the relative energy content of the feedstocks to determine how many gallon-RINs should be assigned to each D code. Commenters generally did not address this aspect of our proposal, and we are finalizing it in today's action. Thus, the useable energy content of each feedstock must be used to divide the total number of gallon-RINs generated for a batch of renewable fuel into two or more groups, each corresponding to a different D code. Several separate batch-RINs can then be generated and assigned to the single volume of renewable fuel. The applicable calculations are given in the regulations at § 80.1426(f)(3).

We proposed several elements of the calculation of the useable energy content of the feedstocks, including the following:

1. Only that fraction of a feedstock which is expected to be converted into renewable fuel by the facility can be counted in the calculation, taking into account facility conversion efficiency.

2. The producer of the renewable fuel is required to designate this fraction once each year for the feedstocks processed by his facility during that year, and to include this information as part of his reporting requirements.

3. Each producer is required to designate the energy content (in Btu/lb) once each year of the portion of each of his feedstocks which is converted into fuel. The producer may determine these values for his own feedstocks, or may use default values provided in the regulations at § 80.1426(f)(7).

4. Each producer is required to determine the total mass of each type of feedstock used by the facility on at least a daily basis.

Based on the paucity of comments we received on this issue, we are finalizing the provisions regarding the calculation of useable energy content of the feedstocks as it was proposed in the NPRM. As described in Section II.J, producers of renewable fuel will be required to submit information in their reports on the feedstocks they used, their production processes, and the type of fuel(s) they produced during the compliance period. This will apply to both domestic producers and foreign producers who export any renewable fuel to the U.S. We will use this information to verify that the D codes used in generating RINs were appropriate.

4. Facilities That Co-Process Renewable Biomass and Fossil Fuels

We expect situations to arise in which a producer uses a renewable feedstock simultaneously with a fossil fuel feedstock, producing a single fuel that is only partially renewable. For instance, biomass might be co-fired with coal in a coal-to-liquids (CTL) process that uses Fischer-Tropsch chemistry to make diesel fuel, biomass and waste plastics might be fed simultaneously into a catalytic or gasification process to make diesel fuel, or vegetable oils could be fed to a hydrotreater along with petroleum to produce a diesel fuel. In these cases, the diesel fuel will be only partially renewable. RINs can be generated in such cases, but must be done in such a way that the number of gallon-RINs corresponds only to the renewable portion of the fuel.

Under RFS1, we created a provision to address the co-processing of "renewable crudes" along with petroleum feedstocks to produce a gasoline or diesel fuel that is partially renewable. See 40 CFR 80.1126(d)(6). However, this provision would not apply in cases where either the renewable feedstock or the fossil fuel feedstock is a gas (*e.g.,* biogas, natural gas) or a solid (*e.g.,* biomass, coal). Therefore, we are eliminating the RFS1 provision applicable only to liquid feedstocks and replacing it with a more comprehensive approach that will apply to liquid, solid, or gaseous feedstocks and any type of conversion process. In this final approach, producers are required to use the relative energy content of their renewable and non-renewable feedstocks to determine the renewable fraction of the fuel that they produce. This fraction in turn is used to determine the number of gallon-RINs that should be generated for each batch. Commenters said little about our proposed methodology to use the relative energy content of the feedstocks, and we are therefore finalizing it largely as proposed.

We also requested comment on allowing renewable fuel producers to use an accepted test method to directly measure the fraction of the fuel that is derived from biomass rather than a fossil fuel feedstock. For instance, ASTM D–6866 is a radiocarbon dating test method that can be used to determine the renewable content of transportation fuel. The use of such a test method can be used in lieu of the calculation of the renewable portion of the fuel based on the relative energy content of the renewable biomass and fossil feedstocks. Commenters generally supported the option of using a radiocarbon dating approach. As a result, we believe it would be appropriate and are finalizing a provision to allow parties that co-process renewable biomass and fossil fuels to choose between using the relative energy in the feedstocks or ASTM D–6866 to determine the number of gallon-RINs that should be generated. Regardless of the approach chosen, the

[15] Batch-RINs and gallon-RINs are defined in the regulations at 40 CFR 80.1401.

producer will still need to separately verify that the renewable feedstocks meet the definition of renewable biomass.

If a producer chose to use the energy content of the feedstocks, the calculation would be similar to the treatment of renewable fuels with multiple D codes as described in Section II.D.3 above. As shown in the regulations at § 80.1426(f)(3), the producer would determine the renewable fuel volume that would be assigned RINs based on the amount of energy in the renewable feedstock relative to the amount of energy in the fossil feedstock. Only one batch-RIN would be generated for a single volume of fuel produced from both a renewable feedstock and a fossil feedstock, and this one batch-RIN must be based on the contribution that the renewable feedstock makes to the total volume of fuel. The calculation of the relative energy contents includes factors that take into account the conversion efficiency of the plant, and as a result potentially different reaction rates and byproduct formation for the various feedstocks will be accounted for. The relative energy content of the feedstocks is used to adjust the basic calculation of the number of gallon-RINs downward from that calculated on the basis of batch fuel volume and the applicable Equivalence Value. The D code that must be assigned to the RINs is drawn from the lookup table in the regulations as if the feedstock was entirely renewable biomass. Thus, for instance, a coal-to-liquids plant that co-processes some cellulosic biomass to make diesel fuel would be treated as a plant that produces only cellulosic diesel for purposes of identifying the appropriate D code for the fraction of biofuel that qualifies as renewable fuel under EISA.

If a producer chose to use D–6866, he would be required to either apply this test to every batch, or alternatively to take samples of every batch of fuel he produced over the course of one month and combine them into a single composite sample. The D–6866 test would then be applied to the composite sample, and the resulting renewable fraction would be applied to all batches of fuel produced in the next month to determine the appropriate number of RINs that must be generated. For the first month, the producer can estimate the non-fossil fraction, and then make a correction as needed in the second month. The producer would be required to recalculate the renewable fraction every subsequent month. See the regulations at § 80.1426(f)(9).

5. Facilities That Process Municipal Solid Waste

As described in Section II.B.4.d, only the separated yard and food waste of municipal solid waste (MSW) are considered to be renewable biomass and may be used to produce renewable fuels under the RFS2 program. While renewable fuel producers may produce fuel from all organic components of MSW, they may generate RINs for only that portion of MSW that qualifies as renewable biomass. We are providing two methods for determining the appropriate number of RINs to generate for each batch of fuel, depending on whether the feedstock is pure food and yard waste, or separated municipal solid waste, as described in Section II.B.4.d. While not all biogenic material in the separated MSW is cellulosic, the vast majority of it is likely to be in most situations. Specifically, separated municipal solid waste may contain some non-biogenic materials such as plastics that were unable to be recycled due to market conditions. We are requiring producers of renewable fuel made from separated municipal solid waste to use the radiocarbon dating method D–6866 to calculate the biogenic fraction, presumed to be composed of cellulosic materials. Therefore, unless a renewable fuel producer is using MSW streams that are clearly not cellulosic, we anticipate that a D code of either 3 or 7 will be appropriate for such RINs. *See* the regulations at § 80.1426(f).

6. RINless Biofuel

Under the RFS1 program, all renewable fuel made from renewable feedstocks and used as motor vehicle fuel in the U.S. was assigned RINs. Therefore, aside from the very small amounts of biofuel used in nonroad applications or as heating oil, all renewable fuel produced or imported counted towards the mandated volume goals of the RFS program. Although conventional diesel fuel was not subject to the standards under RFS1, all other motor vehicle fuel fell into two groups: fuel subject to the standards, and fuel for which RINs were generated and was used to meet those standards.

Under RFS2, our approach to compliance with the renewable biomass provision will allow the possibility for some biofuel to be produced without RINs. As described in Section II.B.4 above, we are modifying our approach to compliance with the renewable biomass provision so that renewable fuel producers using feedstocks from domestic planted crops and crop residue will be presumed to meet the renewable biomass provision. Under this "aggregate compliance" approach, these producers will be generating RINs for all their renewable fuel. However, producers who use foreign-grown crops or crop residue or other feedstocks such as planted trees or forestry residues will not be able to take advantage of this aggregate compliance approach. Instead, they will be required to demonstrate that their feedstocks meet the renewable biomass definition, including the associated land use restrictions, before they will be permitted to generate RINs. Absent such a demonstration, these producers can still produce biofuel but will not generate RINs. In addition, fuel producers whose fuel does not qualify as renewable fuel under this program because it does not meet the 20% GHG threshold (and is not grandfathered) can still produce biofuel but will not be allowed to generate RINs. Transportation fuel consumed in the U.S. will therefore be comprised of three groups: fuel subject to the standards (gasoline and diesel), fuel for which RINs are generated and will be used to meet those standards, and RINless biofuel. RINless biofuel will not be covered under any aspect of the RFS2 program, despite the fact that in many cases it will meet the EISA definition of transportation fuel upon blending with gasoline or diesel.

In their comments in response to the NPRM, several refiners suggested that RINless biofuel should be treated as an obligated volume similar to gasoline and diesel, and thus be subject to the standards. Doing so would ensure that all transportation fuels are covered under the RFS2 program, consistent with RFS1. Such an approach would also provide renewable fuel producers with an incentive to demonstrate that their feedstocks meet the renewable biomass definition and thus generate RINs for all the biofuel that they produce. There could be less potential for market manipulation on the part of biofuel producers who might be considering producing RINless biofuel as a means for increasing demand for renewable fuel and RINs.

Nevertheless, we do not believe that it would be appropriate at this time to finalize a requirement that RINless biofuel be considered an obligated fuel subject to the standards. We did not propose such an approach in the NPRM, and as a result many renewable fuel producers who could be affected did not have an opportunity to consider and comment on it. Moreover, the volume of RINless biofuel is likely to be small compared to the volume of renewable fuel with RINs since RINs have value and producers currently have an

incentive to generate them. However, if in the future RIN values should fall—for instance, if crude oil prices rise high enough and the market drives up demand for biofuels—the incentive to demonstrate compliance with the renewable biomass definition may decrease and there may be an increase in the volume of RINless biofuel. Under such circumstances it may be appropriate to reconsider whether RINless biofuel should be designated as an obligated volume subject to the standards.

E. Applicable Standards

The renewable fuel standards are expressed as a volume percentage, and are used by each refiner, blender or importer to determine their renewable fuel volume obligations. The applicable percentages are set so that if each regulated party meets the percentages, then the amount of renewable fuel, cellulosic biofuel, biomass-based diesel, and advanced biofuel used will meet the volumes specified in Table I.A.1–1.[16]

The formulas finalized today for use in deriving annual renewable fuel standards are based in part on an estimate of combined gasoline and diesel volumes, for both highway and nonroad uses, for the year in which the standards will apply. The standards will apply to refiners, blenders, and importers of these fuels. As described more fully in Section II.F.3, other producers of transportation fuel, such as producers of natural gas, propane, and electricity from fossil fuels, are not subject to the standards. Since the standards apply to refiners, blenders and importers of gasoline and diesel, these are also the transportation fuels that are used to determine the annual volume obligations of an individual refiner, blender, or importer.

The projected volumes of gasoline and diesel used to calculate the standards will continue to be provided by EIA's Short-Term Energy Outlook (STEO). The standards applicable to a given calendar year will be published by November 30 of the previous year. Gasoline and diesel volumes will continue to be adjusted to account for the required renewable fuel volumes. In addition, gasoline and diesel volumes produced by small refineries and small refiners will be exempt through 2010, and that year's standard is adjusted accordingly, as discussed below.

As discussed in the proposal, four separate standards are required under the RFS2 program, corresponding to the four separate volume requirements shown in Table I.A.1–1. The specific formulas we use to calculate the renewable fuel standards are described below in Section II.E.1.

In order for an obligated party to demonstrate compliance, the percentage standards are converted into the volume of renewable fuel each obligated party is required to satisfy. This volume of renewable fuel is the volume for which the obligated party is responsible under the RFS program, and continues to be referred to as its Renewable Volume Obligation (RVO). Since there are four separate standards under the RFS2 program, there are likewise four separate RVOs applicable to each obligated party. Each standard applies to the sum of all gasoline and diesel produced or imported. Determination of RVOs is discussed in Section II.G.2.

1. Calculation of Standards

a. How Are the Standards Calculated?

The four separate renewable fuel standards are based primarily on (1) the 49-state[17] gasoline and diesel consumption volumes projected by EIA, and (2) the total volume of renewable fuels required by EISA for the coming year. Table I.A.2–1 shows the required overall volumes of four types of renewable fuel specified in EISA. Each renewable fuel standard is expressed as a volume percentage of combined gasoline and diesel sold or introduced into commerce in the U.S., and is used by each obligated party to determine its renewable volume obligation.

Today we are finalizing an approach to setting standards that is based in part on the sum of all gasoline and diesel produced or imported in the 48 contiguous states and Hawaii. An approach we are not adopting but which we discussed in the proposal would have split the standards between those that would be specific to gasoline and those that would be specific to diesel. Though this approach to setting standards would more readily align the RFS obligations with the relative amounts of gasoline and diesel produced or imported by each obligated party, we are not adopting this approach because it relies on projections of the relative amounts of gasoline-displacing and diesel-displacing renewable fuels. These projections would need to be updated every year, and as stated in the proposal, we believe that such an approach would unnecessarily complicate the program.

While the required amount of total renewable fuel for a given year is provided by EISA, the Act requires EPA to base the standards on an EIA estimate of the amount of gasoline and diesel that will be sold or introduced into commerce for that year. As discussed in the proposal, EIA's STEO will continue to be the source for projected gasoline, and now diesel, consumption estimates. In order to achieve the volumes of renewable fuels specified in EISA, the gasoline and diesel volumes used to determine the standard must be the non-renewable portion of the gasoline and diesel pools. Because the STEO volumes include renewable fuel use, we must subtract the total renewable fuel volume from the total gasoline and diesel volume to get total non-renewable gasoline and diesel volumes. The Act also requires EPA to use EIA estimates of renewable fuel volumes; the best estimation of the coming year's renewable fuel consumption is found in Table 8 (U.S. Renewable Energy Supply and Consumption) of the STEO. Additional information on projected renewable fuel use will be included as it becomes available.

As discussed in Section II.D.1, we are finalizing the energy content approach to Equivalence Values for the cellulosic biofuel, advanced biofuel, and total renewable fuel standards. However, the biomass-based diesel standard is based on the volume of biodiesel. In order to align both of these approaches simultaneously, biodiesel will continue to generate 1.5 RINs per gallon as in RFS1, and the biomass-based diesel volume mandate from EISA is then adjusted upward by the same 1.5 factor. The net result is a biomass-based diesel gallon being worth 1.0 gallons toward the biomass-based diesel standard, but 1.5 gallons toward the other standards.

CAA section 211(o) exempts small refineries[18] from the RFS requirements until the 2011 compliance period. In RFS1, we extended this exemption to the few remaining small refiners not already exempted.[19] Small refineries and small refiners will continue to be exempt from the program until 2011 under the new RFS2 regulations. Thus we have excluded their gasoline and diesel volumes from the overall non-renewable gasoline and diesel volumes used to determine the applicable percentages until 2011. As discussed in

[16] Actual volumes can vary from the amounts required in the statute. For instance, lower volumes may result if the statutorily required volumes are adjusted downward according to the waiver provisions in CAA 211(o)(7)(D). Also, higher or lower volumes may result depending on the actual consumption of gasoline and diesel in comparison to the projected volumes used to set the standards.

[17] Hawaii opted-in to the original RFS program; that opt-in is carried forward to this program.

[18] Under section 211(o) of the Clean Air Act, small refineries are those with 75,000 bbl/day or less average aggregate daily crude oil throughput.

[19] *See* Section III.E.

the proposal, total small refinery and small refiner gasoline production volume is expected to be fairly constant compared to total U.S. transportation fuel production. Thus we estimated small refinery and small refiner gasoline and diesel volumes using a constant percentage of national consumption, as we did in RFS1. Using information from gasoline batch reports submitted to EPA for 2006, EIA data, and input from the California Air Resources Board regarding California small refiners, we estimate that small refinery volumes constitute 11.9% of the gasoline pool, and 15.2% of the diesel pool.

CAA section 211(o) requires that the small refinery adjustment also account for renewable fuels used during the prior year by small refineries that are exempt and do not participate in the RFS2 program. Accounting for this volume of renewable fuel would reduce the total volume of renewable fuel use required of others, and thus directionally would reduce the percentage standards. However, as we discussed in RFS1, the amount of renewable fuel that would qualify, i.e., that was used by exempt small refineries and small refiners but not used as part of the RFS program, is expected to be very small. In fact, these volumes would not significantly change the resulting percentage standards. Whatever renewable fuels small refineries and small refiners blend will be reflected as RINs available in the market; thus there is no need for a separate accounting of their renewable fuel use in the equations used to determine the standards. We proposed and are finalizing this value as zero.

The levels of the percentage standards would be reduced if Alaska or a U.S. territory chooses to participate in the RFS2 program, as gasoline and diesel produced in or imported into that state or territory would then be subject to the standard. Section 211(o) of the Clean Air Act requires that the renewable fuel be consumed in the contiguous 48 states, and any other state or territory that opts-in to the program (Hawaii has subsequently opted in). However, because renewable fuel produced in Alaska or a U.S. territory is unlikely to be transported to the contiguous 48 states or to Hawaii, including their renewable fuel volumes in the calculation of the standard would not serve the purpose intended by section 211(o) of the Clean Air Act of ensuring that the statutorily required renewable fuel volumes are consumed in the 48 contiguous states and any state or territory that opts-in. Therefore, renewable fuels used in Alaska or U.S. territories are not included in the renewable fuel volumes that are subtracted from the total gasoline and diesel volume estimates.

In summary, the total projected non-renewable gasoline and diesel volumes from which the annual standards are calculated are based on EIA projections of gasoline and diesel consumption in the contiguous 48 states and Hawaii, adjusted by constant percentages of 11.9% and 15.2% in 2010 to account for small refinery/refiner gasoline and diesel volumes, respectively, and with built-in correction factors to be used when and if Alaska or a territory opt-in to the program.

The following formulas are used to calculate the percentage standards:

$$\mathrm{Std}_{\mathrm{CB,i}} = 100\% \times \frac{\mathrm{RFV}_{\mathrm{CB,i}}}{(G_i - RG_i) + (GS_i - RGS_i) - GE_i + (D_i - RD_i) + (DS_i - RDS_i) - DE_i}$$

$$\mathrm{Std}_{\mathrm{BBD,i}} = 100\% \times \frac{\mathrm{RFV}_{\mathrm{BBD,i}} \times 1.5}{(G_i - RG_i) + (GS_i - RGS_i) - GE_i + (D_i - RD_i) + (DS_i - RDS_i) - DE_i}$$

$$\mathrm{Std}_{\mathrm{AB,i}} = 100\% \times \frac{\mathrm{RFV}_{\mathrm{AB,i}}}{(G_i - RG_i) + (GS_i - RGS_i) - GE_i + (D_i - RD_i) + (DS_i - RDS_i) - DE_i}$$

$$\mathrm{Std}_{\mathrm{RF,i}} = 100\% \times \frac{\mathrm{RFV}_{\mathrm{RF,i}}}{(G_i - RG_i) + (GS_i - RGS_i) - GE_i + (D_i - RD_i) + (DS_i - RDS_i) - DE_i}$$

Where

$\mathrm{Std}_{\mathrm{CB,i}}$ = The cellulosic biofuel standard for year i, in percent

$\mathrm{Std}_{\mathrm{BBD,i}}$ = The biomass-based diesel standard (ethanol-equivalent basis) for year i, in percent

$\mathrm{Std}_{\mathrm{AB,i}}$ = The advanced biofuel standard for year i, in percent

$\mathrm{Std}_{\mathrm{RF,i}}$ = The renewable fuel standard for year i, in percent

$\mathrm{RFV}_{\mathrm{CB,i}}$ = Annual volume of cellulosic biofuel required by section 211(o)(2)(B) of the Clean Air Act for year i, in gallons

$\mathrm{RFV}_{\mathrm{BBD,i}}$ = Annual volume of biomass-based diesel required by section 211(o)(2)(B) of the Clean Air Act for year i, in gallons

$\mathrm{RFV}_{\mathrm{AB,i}}$ = Annual volume of advanced biofuel required by section 211(o)(2)(B) of the Clean Air Act for year i, in gallons

$\mathrm{RFV}_{\mathrm{RF,i}}$ = Annual volume of renewable fuel required by section 211(o)(2)(B) of the Clean Air Act for year i, in gallons

G_i = Amount of gasoline projected to be used in the 48 contiguous states and Hawaii, in year i, in gallons*

D_i = Amount of diesel projected to be used in the 48 contiguous states and Hawaii, in year i, in gallons

RG_i = Amount of renewable fuel blended into gasoline that is projected to be consumed in the 48 contiguous states and Hawaii, in year i, in gallons

RD_i = Amount of renewable fuel blended into diesel that is projected to be consumed in the 48 contiguous states and Hawaii, in year i, in gallons

GS_i = Amount of gasoline projected to be used in Alaska or a U.S. territory in year i if the state or territory opts-in, in gallons*

RGS_i = Amount of renewable fuel blended into gasoline that is projected to be consumed in Alaska or a U.S. territory in year i if the state or territory opts-in, in gallons

DS_i = Amount of diesel projected to be used in Alaska or a U.S. territory in year i if the state or territory opts-in, in gallons *

RDS_i = Amount of renewable fuel blended into diesel that is projected to be consumed in Alaska or a U.S. territory in

year i if the state or territory opts-in, in gallons

GE_i = The amount of gasoline projected to be produced by exempt small refineries and small refiners in year i, in gallons, in any year they are exempt per §§ 80.1441 and 80.1442, respectively. Equivalent to $0.119*(G_i - RG_i)$.

DE_i = The amount of diesel projected to be produced by exempt small refineries and small refiners in year i, in gallons, in any year they are exempt per §§ 80.1441 and 80.1442, respectively. Equivalent to $0.152*(D_i - RD_i)$.

* Note that these terms for projected volumes of gasoline and diesel use include gasoline and diesel that has been blended with renewable fuel.

b. Standards for 2010

We are finalizing the standards for 2010 in today's action. As explained in Section I.A.2, while the rulemaking is not effective until July 1, 2010, the 2010 standards we are setting are annual standards with compliance demonstrations are due by February 28, 2011.

Under CAA section 211(o)(7)(D)(i), EPA is required to make a determination each year regarding whether the required volumes of cellulosic biofuel for the following year can be produced. For any calendar year for which the projected volume of cellulosic biofuel production is less than the minimum required volume, the projected volume becomes the basis for the cellulosic biofuel standard. In such a case, the statute also indicates that EPA may also lower the required volumes for advanced biofuel and total renewable fuel.

As discussed in Section IV.B., we are utilizing the EIA projection of 5.04 million gallons (6.5 million ethanol equivalent gallons) of cellulosic biofuel as the basis for setting the percentage standard for cellulosic biofuel for 2010. This is lower than the 100 million gallon standard set by EISA that we proposed upholding, but reflects the current state of the industry, as discussed in section V.B. We expect continued growth in the industry in 2011 and beyond. Since the advanced biofuel standard is met by just the biomass-based diesel volume required in 2010, and additional volumes of other advanced biofuels (*e.g.,* sugarcane ethanol) are available as well, no change to the advanced biofuel standard is necessary for 2010. Moreover, given the nested nature of the volume mandates, since no change in the advanced biofuel standard is necessary, the total renewable fuel standard need not be changed either.

TABLE II.E.1.b–1—STANDARDS FOR 2010

	Percent
Cellulosic biofuel	0.004
Biomass-based diesel	1.10
Advanced biofuel	0.61
Renewable fuel	8.25

2. Treatment of Biomass-Based Diesel in 2009 and 2010

As described in Section I.A.2, the four separate 2010 standards issued in today's rule will apply to all gasoline and diesel produced in 2010. However, EISA included volume mandates for biomass-based diesel, advanced biofuel, and total renewable fuel that applied in 2009. Since the RFS2 program was not effective in 2009 and thus the volume mandates for biomass-based diesel and advanced biofuel were not implemented in 2009, our NPRM proposed a mechanism to ensure that the 2009 biomass-based diesel volume mandate would eventually be met. In today's final rule we are finalizing the proposed approach.

a. Shift in 2009 Biomass-Based Diesel Compliance Demonstration to 2010

Under the RFS1 regulations that applied in 2009, we set the applicable standard for total renewable fuel in November 2008 [20] using the required volume of 11.1 billion gallons specified in the Clean Air Act (as amended by EISA), gasoline volume projections from EIA, and the formula provided in the regulations at § 80.1105(d). The existing RFS1 regulations did not provide a mechanism for requiring the use of 0.5 billion gallons of biomass-based diesel or the 0.6 billion gallons of advanced biofuel mandated by EISA for 2009.

In the NPRM we proposed that the compliance demonstration for the 2009 biomass-based diesel requirement of 0.5 bill gal be extended to 2010. This approach would combine the 0.5 bill gal requirement for 2009 and the 0.65 bill gal requirement for 2010 into a single requirement of 1.15 bill gal for which compliance demonstrations would be made by February 28, 2011. As described in the NPRM, we believe that the deficit carryover provision provides a conceptual mechanism for this approach, since it would have allowed obligated parties to defer compliance with any or all of the 2009 standards until 2010. We are finalizing this approach in today's action. We believe it will ensure that these two year's worth of biomass-based diesel will be used, while providing reasonable lead time for obligated parties. It avoids a transition that fails to have any requirements related to the 2009 biomass-based diesel volume, and instead requires the use of the 2009 volume but achieves this by extending the compliance period by one year. We believe this is a reasonable exercise of our authority under section 211(o)(2) to issue regulations that ensure that the volumes for 2009 are ultimately used, even though we were unable to issue final regulations prior to the 2009 compliance year. We announced our intentions to implement the 2009 and 2010 biomass-based diesel requirements in this manner in the November 2008 **Federal Register** notice cited previously. We reiterated these intentions in our NPRM. Thus, obligated parties will have had sufficient lead time to acquire a sufficient number of biomass-based diesel RINs by the end of 2010 to comply with the standard based on 1.15 bill gal.

Data available at the time of this writing suggests that approximately 450 million gallons of biodiesel was produced in 2009, thus requiring 700 million gallons to be produced in 2010 to satisfy the combined 2009 and 2010 volume mandates. Information from commenters and other contacts in the biodiesel industry indicate that feedstocks and production facilities will be available in 2010 to produce this volume.

Refiners generally commented that the proposed approach to 2009 and 2010 biomass-based diesel volumes was not appropriate and should not be implemented. They also recommended that the RFS2 program should be made effective on January 1, 2011 with no carryover of any previous-year obligations for biomass-based diesel or any other volume mandate. In contrast, the National Biodiesel Board and several individual biodiesel producers supported the proposed approach, but believed it was insufficient to compel obligated parties to purchase biodiesel in 2009, something they considered critical to the survival of the biodiesel industry. Many of these commenters requested that we conduct an interim rulemaking that would apply to 2009 to implement the EISA mandated volume of 0.5 billion gallons of biomass-based diesel. If the RFS2 program could not be implemented until 2011, they likewise requested that interim measures be taken for 2010 to ensure that the full 1.15 bill gal requirement would be implemented. However, putting in place this new volume requirement without also putting in place EISA's new definition for biomass-based diesel, renewable fuel, and renewable biomass

[20] *See* 73 FR 70643 (November 21, 2008).

would have raised significant legal and policy issues that would necessarily have required a new proposal with its own public notice and comment process. Because of the significant time required for notice and comment rulemaking, the need to provide industry with adequate lead time for new requirements, and the fact that we were already well into calendar year 2009 at the time the request for an interim rule was received, it was unlikely that any interim rule could have impacted biodiesel demand in 2009. Moreover, Agency resources applied to the interim rulemaking would have been unavailable for development of the final RFS2 rulemaking. Developing an interim rule could have undermined EPA's ability to complete the full RFS2 program regulations in time for 2010 implementation. As a result, we did not pursue an interim rulemaking.

With regard to advanced biofuel, it is not necessary to implement a separate requirement for the 0.6 billion gallon mandate for 2009. Due to the nested nature of the volume requirements and the fact that Equivalence Values will be based on the energy content relative to ethanol, the 0.5 billion gallon requirement for biomass-based diesel will count as 0.75 billion gallons of advanced biofuel, exceeding the requirement of 0.6 billion gallons. Thus compliance with the biomass-based diesel requirement in 2009 automatically results in compliance with the advanced biofuel standard.

All 2009 biodiesel and renewable diesel RINs, identifiable through an RR code of 15 or 17 respectively under the RFS1 regulations, will be valid for showing compliance with the adjusted 2010 biomass-based diesel standard of 1.15 billion gallons. This use of previous year RINs for current year compliance is consistent with our approach to any other standard for any other year and consistent with the flexibility available to any obligated party that carries a deficit from one year to the next. Moreover, it allows an obligated party to acquire sufficient biodiesel and renewable diesel RINs during 2009 to comply with the 0.5 billion gallons requirement, even though their compliance demonstration would not occur until the 2010 compliance period.

We did not reduce the 2009 volume requirement for total renewable fuel by 0.5 billion gallons to account for the fact that we intended to move the compliance demonstration for this volume has been moved to the 2010 compliance period. Instead, we are allowing 2009 biodiesel and renewable diesel RINs to be used for compliance purposes for both the 2009 total renewable fuel standard as well as the 2010 adjusted biomass-based diesel standard (but not for the 2010 advanced biofuel or total renewable fuel standards). To accomplish this, we proposed in the NPRM that an obligated party would add up the 2009 biodiesel and renewable diesel RINs that he used for 2009 compliance with the RFS1 standard for total renewable fuel, and reduce his 2010 biomass-based diesel obligation by this amount. Thus, 2009 biodiesel and renewable diesel RINs are essentially used twice. Any remaining 2010 biomass-based diesel obligation would need to be covered either with 2009 biodiesel and renewable diesel RINs that were not used for compliance in 2009 or with 2010 biomass-based diesel RINs. We are finalizing this approach in today's notice.

b. Treatment of Deficit Carryovers, RIN Rollover, and RIN Valid Life for Adjusted 2010 Biomass-Based Diesel Requirement

Our transition approach for biomass-based diesel is conceptually similar, but not identical, to the statutory deficit carryover provision. In a typical deficit carryover situation, an obligated party can carry forward any amount of a current-year deficit to the following year. In the absence of any modifications to the deficit carryover provisions for our biomass-based diesel transition provisions, then, an obligated party that did not fully comply with the 2010 biomass-based diesel requirement of 1.15 billion gallons could carry a deficit of any amount into 2011. As described in the NPRM, we believe that the deficit carryover provisions should be modified in the context of the transition biomass-based diesel approach to more closely represent what would have occurred if we had been able to implement the 0.5 bill gal requirement in 2009. Specifically, we are prohibiting obligated parties from carrying over a biomass-based diesel deficit into 2011 larger than that based on the 0.65 bill gal volume requirement for 2010. This is the amount that would have been permitted had we been able to implement the biomass-based diesel requirements in 2009. In practice, this means that deficit carryovers from 2010 into 2011 for biomass-based diesel cannot not exceed 57% (0.65/1.15) of an obligated party's 2010 RVO. This approach also helps to ensure a minimum volume mandate for companies producing biomass-based diesel each year.

Similarly, in the absence of any modifications to the provisions regarding valid life of RINs, 2008 biodiesel and renewable diesel RINs could not be used for compliance in 2010 with the adjusted biomass-based diesel standard, despite the fact that the 2010 standard includes the 2009 requirement for which 2008 RINs should be valid. The National Biodiesel Board opposed this approach on the basis that the use of 2008 RINs for 2010 compliance demonstrations violated the 2-year valid life limit for RINs. However, since the 2010 compliance demonstration will include the obligation that would have applied in 2009, and 2008 RINs would be valid for 2009 compliance, we are allowing excess 2008 biodiesel and renewable diesel RINs that were not used for compliance purposes in 2008 to be used for compliance purposes in 2009 or 2010.

As described in Section III.D, we are requiring the 20% RIN rollover cap to apply in all years, and separately for all four standards. However, consistent with our approach to deficit carryovers, we believe that an additional constraint is warranted in the application of the rollover cap to the biomass-based diesel obligation in the 2010 compliance year to more closely represent what would have occurred if we had been able to implement the 0.5 bill gal requirement in 2009. Specifically, we are limiting the use of excess 2008 RINs to 20% of the statutory 2009 requirement of 0.5 bill gal. This is equivalent to 0.1 bill gal (20% of 0.5 bill gal), or 8.7% of the combined 2009/2010 obligation of 1.15 bill gal (0.1/1.15). Thus, obligated parties will be allowed to use excess 2008 and 2009 biodiesel and renewable diesel RINs for compliance with the 2010 combined standard of 1.15 bill gal, so long as the sum of all previous-year RINs (2008 plus 2009 RINs) does not exceed 20% of their 2010 obligation, and the 2008 RINs do not exceed 8.7% of their 2010 obligation.

Under RFS1, RINs are generated when renewable fuel is produced, but if the fuel is ultimately used for purposes other than as motor vehicle fuel the RINs must generally be retired. Under EISA, however, RINs generated for renewable fuel that is ultimately used for nonroad purposes, heating oil, or jet fuel are valid for compliance purposes. To more closely align our transition approach for biomass-based diesel to what could have occurred if we had issued the RFS2 standards prior to 2009, we are allowing 2009 RINs that are retired because they are ultimately used for nonroad, heating oil or jet fuel purposes to be valid for compliance with the 2010 standards. Such RINs can

be reinstated by the retiring party in 2010.

3. Future Standards

The statutorily-prescribed phase-in period ends in 2012 for biomass-based diesel and in 2022 for cellulosic biofuel, advanced biofuel, and total renewable fuel. Beyond these years, EISA requires EPA to determine the applicable volumes based on a review of the implementation of the program up to that time, and an analysis of a wide variety of factors such as the impact of the production of renewable fuels on the environment, energy security, infrastructure, costs, and other factors. For these future standards, EPA must promulgate rules establishing the applicable volumes no later than 14 months before the first year for which such applicable volumes would apply. For biomass-based diesel, this would mean that final rules would need to be issued by October 31, 2011 for application starting on January 1, 2013. In today's rulemaking, we are not suggesting any specific volume requirements for biomass-based diesel for 2013 and beyond that would be appropriate under the statutory criteria that we must consider. Likewise, we are not suggesting any specific volume requirements for the other three renewable fuel categories for 2023 and beyond. However, the statute requires that the biomass-based diesel volume in 2013 and beyond must be no less than 1.0 billion gallons, and that advanced biofuels in 2023 and beyond must represent at a minimum the same percentage of total renewable fuel as it does in 2022. These provisions will be implemented as part of an annual standard-setting process.

F. Fuels That Are Subject to the Standards

Under RFS1, producers and importers of gasoline are obligated parties subject to the standards—any party that produces or imports only diesel fuel is not subject to the standards. EISA changes this provision by expanding the RFS program in general to include all transportation fuel. As discussed above, however, section 211(o)(3) continues to require EPA to determine which refiners, blenders, and importers are treated as subject to the standard. As described further in Section II.G below, under this rule, the sum of all highway and nonroad gasoline and diesel fuel produced or imported within a calendar year will be the basis on which the RVOs are calculated. This section provides our final definition of gasoline and diesel for the purposes of the RFS2 program.

1. Gasoline

As with the RFS1 rule, the volume of gasoline used in calculating the RVO under RFS2 will continue to include all finished gasoline (reformulated gasoline (RFG) and conventional gasoline (CG)) produced or imported for use in the contiguous United States or Hawaii, as well as all unfinished gasoline that becomes finished gasoline upon the addition of oxygenate blended downstream from the refinery or importer. This includes both unfinished reformulated gasoline, called "reformulated gasoline blendstock for oxygenate blending," or "RBOB," and unfinished conventional gasoline designed for downstream oxygenate blending (e.g., sub-octane conventional gasoline), called "CBOB." The volume of any other unfinished gasoline or blendstock, (such as butane or naphtha produced in a refinery) or exported gasoline, will not be included in the obligated volume, except where the blendstock is combined with other blendstock or gasoline to produce finished gasoline, RBOB, or CBOB. Where a blendstock is blended with other blendstock to produce finished gasoline, RBOB, or CBOB, the total volume of the gasoline blend will be included in the volume used to determine the blender's renewable fuels obligation. Where a blendstock is added to finished gasoline, only the volume of the blendstock will be included, since the finished gasoline would have been included in the compliance determinations of the refiner or importer of the gasoline. For purposes of this preamble, the various gasoline products described above that we are including in a party's obligated volume are collectively called "gasoline."

Also consistent with the RFS1 program, we are continuing the exclusion of any volume of renewable fuel contained in gasoline from the volume of gasoline used to determine the renewable fuels obligations. This exclusion applies to any renewable fuels that are blended into gasoline at a refinery, contained in imported gasoline, or added at a downstream location. Thus, for example, any ethanol added to RBOB or CBOB at a refinery's rack or terminal downstream from the refinery or importer will be excluded from the volume of gasoline used by the refiner or importer to determine the obligation. This is consistent with how the standard itself is calculated—EPA determines the applicable percentage by comparing the overall projected volume of gasoline used to the overall renewable fuel volume that is specified in the statute, and EPA excludes ethanol and other renewable fuels that are blended into the gasoline in determining the overall projected volume of gasoline. When an obligated party determines their RVO by applying the applicable percentage to the amount of gasoline they produce or import, it is consistent to also exclude ethanol and other renewable fuel blends from the calculation of the volume of gasoline produced.

As with the RFS1 rule, Gasoline Treated as Blendstock (GTAB) will continue to be treated as a blendstock under the RFS2 program, and thus will not count towards a party's renewable fuel obligation. Where the GTAB is blended with other blendstock (other than renewable fuel) to produce gasoline, the total volume of the gasoline blend, including the GTAB, will be included in the volume of gasoline used to determine the renewable fuel obligation. Where GTAB is blended with renewable fuel to produce gasoline, only the GTAB volume will be included in the volume of gasoline used to determine the renewable fuel obligation. Where the GTAB is blended with finished gasoline, only the GTAB volume will be included in the volume of gasoline used to determine the renewable fuel obligation.

2. Diesel

EISA expanded the RFS program to include transportation fuels other than gasoline, thus both highway and nonroad diesel must be used in calculating a party's RVO. Any party that produces or imports petroleum-based diesel fuel that is designated as motor vehicle, nonroad, locomotive, and marine diesel fuel (MVNRLM) (or any subcategory of MVNRLM) will be required to include the volume of that diesel fuel in the determination of its RVO under the RFS2 rule. Diesel fuel includes any distillate fuel that meets the definition of MVNRLM diesel fuel as it has already been defined in the regulations at § 80.2(qqq), including any subcategories such as MV (motor vehicle diesel fuel produced for use in highway diesel engines and vehicles), NRLM (diesel fuel produced for use in nonroad, locomotive, and marine diesel engines and equipment/vessels), NR (diesel fuel produced for use in nonroad engines and equipment), and LM (diesel fuel produced for use in locomotives and marine diesel engines and vessels).[21] Transportation fuels meeting

[21] EPA's diesel fuel regulations use the term "nonroad" to designate one large category of land based off-highway engines and vehicles, recognizing that locomotive and marine engines and vessels are also nonroad engines and vehicles under EPAct's definition of nonroad. Except where

the definition of MVNRLM will be used to calculate the RVOs, and refiners, blenders, or importers of MVNRLM will be treated as obligated parties. As such, diesel fuel that is designated as heating oil, jet fuel, or any designation other than MVNRLM or a subcategory of MVNRLM, will not be subject to the applicable percentage standard and will not be used to calculate the RVOs.[22] We requested comment on the idea that any diesel fuel not meeting these requirements, such as distillate or residual fuel intended solely for use in ocean-going vessels, would not be used to calculate the RVOs.

One commenter expressed support for including heating oil and jet fuel into the RIN program, but not to subject these fuels to the RVO mandate. The commenter stated that fluctuating weather conditions make it hard to predict with any reliability the volumes of heating oil that will be used in a given year. Another commenter stated that it supports the extension of the RFS program to transportation fuels, including diesel and nonroad fuels.

With respect to fuels for use in ocean-going vessels, EISA specifies that "transportation fuels" do not include such fuels. We are interpreting that "fuels for use in ocean-going vessels" means residual or distillate fuels other than MVNRLM intended to be used to power large ocean-going vessels (e.g., those vessels that are powered by Category 3 (C3), and some Category 2 (C2), marine engines and that operate internationally). Thus, fuel for use in ocean-going vessels, or that an obligated party can verify as having been used in an ocean-going vessel, will be excluded from the renewable fuel standards. Also, in the context of the recently finalized fuel standards for C3 marine vessels, this would mean that fuel meeting the 1,000 ppm fuel sulfur standard would not be considered obligated volume, while all MVNRLM diesel fuel would.

3. Other Transportation Fuels

Transportation fuels other than gasoline or MVNRLM diesel fuel (natural gas, propane, and electricity) will not be used to calculate the RVOs of any obligated party. We believe this is a reasonable way to implement the obligations of 211(o)(3) because the volumes are small and the producers cannot readily differentiate the small portion used in the transportation sector from the large portion used in other sectors (in fact, the producer may have no knowledge of its ultimate use). We will reconsider this approach if and when these volumes grow. At the same time, it is clear that these fuels can be used as transportation fuel, and under certain circumstances, producers of such "other transportation fuels" may generate RINs as a producer or importer of a renewable fuel. *See* Section II.D.2.a for further discussion of other RIN-generating fuels.

G. Renewable Volume Obligations (RVOs)

Under RFS1, each obligated party was required to determine its RVO based on the applicable percentage standard and its annual gasoline volume. The RVO represented the volume of renewable fuel that the obligated party was required to ensure was used in the U.S. in a given calendar year. Obligated parties were required to meet their RVO through the accumulation of RINs which represent the amount of renewable fuel used as motor vehicle fuel that was sold or introduced into commerce within the U.S. Each gallon-RIN counted as one gallon of renewable fuel for compliance purposes.

We are maintaining this approach to compliance under the RFS2 program. However, one primary difference between RFS1 and the new RFS2 program in terms of demonstrating compliance is that each obligated party now has four RVOs instead of one (through 2012) or two (starting in 2013) under the RFS1 program. Also, as discussed above, RVOs are now calculated based on production or importation of both gasoline and diesel fuels, rather than gasoline alone.

By acquiring RINs and applying them to their RVOs, obligated parties are deemed to have satisfied their obligation to cause the renewable fuel represented by the RINs to be consumed as transportation fuel in highway or nonroad vehicles or engines. Obligated parties are not required to physically blend the renewable fuel into gasoline or diesel fuel themselves. The accumulation of RINs will continue to be the means through which each obligated party shows compliance with its RVOs and thus with the renewable fuel standards.

If an obligated party acquires more RINs than it needs to meet its RVOs, then in general it can retain the excess RINs for use in complying with its RVOs in the following year (subject to the 20% rollover cap discussed in Section III.D) or transfer the excess RINs to another party. If, alternatively, an obligated party has not acquired sufficient RINs to meet its RVOs, then under certain conditions it can carry a deficit into the next year.

This section describes our approach to the calculation of RVOs under RFS2 and the RINs that are valid for demonstrating compliance with those RVOs. This includes a description of the special treatment that must be applied to RFS1 RINs used for compliance purposes under RFS2, since RINs generated under RFS1 regulations are not exactly the same as those generated in under RFS2.

1. Designation of Obligated Parties

In the NPRM, we proposed to continue to designate obligated parties under the RFS2 program as they were designated under RFS1, with the addition of diesel fuel producers and importers. Regarding gasoline producers and importers, we proposed that obligated parties who are subject to the standard would be those that produce or import finished gasoline (RFG and conventional) or unfinished gasoline that becomes finished gasoline upon the addition of an oxygenate blended downstream from the refinery or importer. Unfinished gasoline would include reformulated gasoline blendstock for oxygenate blending (RBOB), and conventional gasoline blendstock designed for downstream oxygenate blending (CBOB) which is generally sub-octane conventional gasoline. The volume of any other unfinished gasoline or blendstock, such as butane, would not be included in the volume used to determine the RVO, except where the blendstock was combined with other blendstock or finished gasoline to produce finished gasoline, RBOB, or CBOB. Thus, parties downstream of a refinery or importer would only be obligated parties to the degree that they use non-renewable blendstocks to make finished gasoline, RBOB, CBOB, or diesel fuel.

We also took comment on two alternative approaches to the designation of obligated parties:

—Elimination of RBOB and CBOB from the list of fuels that are subject to the standard, such that a party's RVO would be based only on the non-renewable volume of finished gasoline or diesel that he produces or imports, thereby moving a portion of the obligation to downstream blenders of renewable fuels into RBOB and CBOB.

—Moving the obligations for all gasoline and diesel downstream of refineries and importers to parties who supply finished transportation fuels to retail outlets or to wholesale purchaser-consumer facilities.

noted, the discussion of nonroad in reference to transportation fuel includes the entire category covered by EPAct's definition of nonroad.

[22] *See* 40 CFR 80.598(a) for the kinds of fuel types used by refiners or importers in designating their diesel fuel.

These alternative approaches have the potential to more evenly align a party's access to RINs with that party's obligations under the RFS2 program. As described more fully in the NPRM, we considered these alternatives because of market conditions that had changed since the RFS1 program began. For instance, obligated parties who have excess RINs have been observed to retain rather than sell them to ensure they have a sufficient number for the next year's compliance. This was most likely to occur with major integrated refiners who operate gasoline marketing operations and thus have direct access to RINs for ethanol blended into their gasoline. Refiners whose operations are focused primarily on producing refined products with less marketing do not have such direct access to RINs and could potentially find it difficult to acquire a sufficient number for compliance despite the fact that the total nationwide volume of renewable fuel meets or exceeds the standard. The result might be a higher price for RINs (and fuel) in the marketplace than would be expected under a more liquid RIN market. For similar reasons, we also took comment on possible changes to the requirement that RINs be transferred with volume through the distribution system as discussed more fully in Section II.H.4.

In response to the NPRM, stakeholders differed significantly on whether EPA should implement one of these alternative approaches. For instance, while some refiners expressed support for moving the obligations to downstream parties such as blenders, terminals, and/or wholesale purchaser-consumers, other refiners preferred to maintain the current approach. Blenders and other downstream parties generally expressed opposition to a change in the designation of obligated parties, citing the additional burden of demonstrating compliance with the standard especially for small businesses. They also pointed to the need to implement new systems for determining and reporting compliance, the short leadtime for doing so, and the fewer resources that smaller downstream companies have to manage such work in comparison to the much larger refiners. Finally, they pointed to the additional complexity that would be added to the RFS program beyond that which is necessary to carry out the renewable fuels mandate under CAA section 211(o).

When the RFS1 regulations were drafted, the obligations were placed on the relatively small number of refiners and importers rather than on the relatively large number of downstream blenders and terminals in order to minimize the number of regulated parties and keep the program simple. However, with the expanded RFS2 mandates, essentially all downstream blenders and terminals are now regulated parties under RFS2 since essentially all gasoline will be blended with ethanol. Thus the rationale in RFS1 for placing the obligation on just the upstream refiners and importers is no longer valid. Nevertheless, based on the comments we received, we do not believe that the concerns expressed warrant a change in the designation of obligated parties for the RFS2 program at this time. We continue to believe that the market will provide opportunities for parties who are in need of RINs to acquire them from parties who have excess. Refiners who market considerably less gasoline or diesel than they produce can establish contracts with splash blenders to purchase RINs. Such refiners can also purchase ethanol from producers directly, separate the RINs, and then sell the ethanol without RINs to blenders. Since the RFS program is based upon ownership of RINs rather than custody of volume, refiners need never take custody of the ethanol in order to separate RINs from volumes that they own. Moreover, a change in the designation of obligated parties would result in a significant change in the number of obligated parties and the movement of RINs, changes that could disrupt the operation of the RFS program during the transition from RFS1 to RFS2.

We will continue to evaluate the functionality of the RIN market. Should we determine that the RIN market is not operating as intended, driving up prices for obligated parties and fuel prices for consumers, we will consider revisiting this provision in future regulatory efforts.

In the NPRM we also took comment on several other possible ways to help ensure that obligated parties can demonstrate compliance. For instance, one alternative approach would have left our proposed definitions for obligated parties in place, but would have added a regulatory requirement that any party who blends ethanol into RBOB or CBOB must transfer the RINs associated with the ethanol to the original producer of the RBOB or CBOB. Stakeholders generally opposed this change, agreeing with our assessment that it would be extremely difficult to implement given that RBOB and CBOB are often transferred between multiple parties prior to ethanol blending. As a result, a regulatory requirement for RIN transfers back to the original producer would have necessitated an additional tracking requirement for RBOB and CBOB so that the blender would know the identity of the original producer. It would also be difficult to ensure that RINs representing the specific category of renewable fuel blended were transferred to the producer of the RBOB or CBOB, given the fungible nature of RINs assigned to batches of renewable fuel. For these reasons, we have not finalized this alternative approach.

Another alternative approach on which we took comment would have allowed use of RINs that expire without being used for compliance by an obligated party to be used to reduce the nationwide volume of renewable fuel required in the following year. This alternative approach could have helped to prevent the hoarding of RINs from driving up demand for renewable fuel. However, it would also effectively alter the valid life limit for RINs. Comments from stakeholders did not change our position that such an approach is not warranted at this time, and thus we have not finalized it.

2. Determination of RVOs Corresponding to the Four Standards

In order for an obligated party to demonstrate compliance, the percentage standards described in Section II.E.1 which are applicable to all obligated parties must be converted into the volumes of renewable fuel each obligated party is required to satisfy. These volumes of renewable fuel are the volumes for which the obligated party is responsible under the RFS program, and are referred to here as its RVO. Under RFS2, each obligated party will need to acquire sufficient RINs each year to meet each of the four RVOs corresponding to the four renewable fuel standards.

The calculation of the RVOs under RFS2 follows the same format as the formulas in the RFS1 regulations at § 80.1107(a), with one modification. The standards for a particular compliance year must be multiplied by the sum of the gasoline and diesel volume produced or imported by an obligated party in that year rather than only the gasoline volume as under the RFS1 program.[23] To the degree that an obligated party did not demonstrate full compliance with its RVOs for the previous year, the shortfall will be included as a deficit carryover in the calculation. CAA section 211(o)(5) only permits a deficit carryover from one year to the next if the obligated party achieves full compliance with each of its RVOs including the deficit carryover

[23] As discussed above, the diesel fuel that is used to calculate the RVO is any diesel designated as MVNRLM or a subcategory of MVNRLM.

in the second year. Thus deficit carryovers cannot occur two years in succession for any of the four individual standards. They can, however, occur as frequently as every other year for a given obligated party for each standard.

Note that a party that produces only diesel fuel will have an obligation for all four standards even though he will not have the opportunity to blend ethanol into his own gasoline. Likewise, a party that produces only gasoline will have an obligation for all four standards even though he will not have an opportunity to blend biomass-based diesel into his own diesel fuel.

3. RINs Eligible To Meet Each RVO

Under RFS1, all RINs had the same compliance value and thus it did not matter what the RR or D code was for a given RIN when using that RIN to meet the total renewable fuel standard. In contrast, under RFS2 only RINs with specified D codes can be used to meet each of the four standards.

As described in Section I.A.1, the volume requirements in EISA are generally nested within one another, so that any fuel that satisfies the advanced biofuel requirement also satisfies the total renewable fuel requirement, and fuel that meets either the cellulosic biofuel or the biomass-based diesel requirements also satisfies the advanced biofuel requirement. As a result, the RINs that can be used to meet the four standards are likewise nested. Using the D codes defined in Table II.A–1, the RFS2 RINs that can be used to meet each of the four standards are shown in Table II.G.3–1. RFS1 RINs generated in 2010 and identified by a D code of 1 or 2 can also be applied to these standards using the protocol described in Section II.G.4 below.

TABLE II.G.3–1—RINS THAT CAN BE USED TO MEET EACH STANDARD

Standard	Obligation	Allowable D codes
Cellulosic biofuel	RVO_{CB}	3 and 7.
Biomass-based diesel	RVO_{BBD}	4 and 7.
Advanced biofuel	RVO_{AB}	3, 4, 5, and 7.
Renewable fuel	RVO_{RF}	3, 4, 5, 6, and 7.

The nested nature of the four standards also means that in some cases we must allow the same RIN to be used to meet more than one standard in the same year. Thus, for instance, a RIN with a D code of 3 can be used to meet three of the four standards, while a RIN with a D code of 5 can be used to meet both the advanced biofuel and total renewable fuel standards. However, a D code of 6 can only be used to meet the renewable fuel standard. Consistent with our proposal, we are continuing to prohibit the use of a single RIN for compliance purposes in more than one year or by more than one party.[24]

4. Treatment of RFS1 RINs Under RFS2

As described in the introduction to this section, we are implementing a number of changes to the RFS program as a result of the requirements in EISA. These changes will go into effect on July 1, 2010 and, among other things, will affect the conditions under which RINs are generated and their applicability to each of the four standards. As a result, RINs generated in 2010 under these RFS2 regulations will not be exactly the same as RINs generated under RFS1 regulations. Given the valid RIN life that allows a RIN to be used in the year generated or the year after, we must address circumstances in which excess 2009 RINs are used for compliance purposes in 2010. Also, since RINs generated in January through June of 2010 will be generated under RFS1 regulations, we must provide a means for them to be used to meet the annual 2010 RFS2 standards. Finally, we must address deficit carryovers from 2009 to 2010, since the total renewable fuel standards in these two years will be defined differently.

a. Use of RFS1 RINs To Meet Standards Under RFS2

In 2009 and the first three months of 2010, the RFS1 regulations will continue to apply and thus producers will not be required to demonstrate that their renewable fuel is made from renewable biomass as defined by EISA, nor that their combination of fuel type, feedstock, and process meets the GHG thresholds specified in EISA. Moreover, there is no practical way to determine after the fact if RINs generated under RFS1 regulations meet any of these criteria. However, we believe that the vast majority of RFS1 RINs generated in 2009 and the first two months of 2010 will in fact meet the RFS2 requirements. First, while ethanol made from corn must meet a 20% GHG threshold under RFS2 if produced by a facility that commenced construction after December 19, 2007, facilities that were already built or had commenced construction as of December 19, 2007 are exempt from this requirement. Essentially all ethanol produced in 2009 and the first three months of 2010 will meet the prerequisites for this exemption. Second, it is unlikely that renewable fuels produced in 2009 or the first three months of 2010 will have been made from feedstocks that do not meet the new renewable biomass definition. It is very unlikely that new land would have been cleared or cultivated since December 19, 2007 for use in growing crops for renewable fuel production, and thus the land use restrictions associated with the renewable biomass definition will very likely be met. Finally, the text of section 211(o)(5) states that a "credit generated under this paragraph shall be valid to show compliance for the 12 months as of the date of generation," and EISA did not change this provision and did not specify any particular transition protocol to follow. A straightforward interpretation of this provision is to allow RFS1 RINs generated in 2009 and early 2010 to be valid to show compliance for the annual 2010 obligations.

The separate definitions for cellulosic biofuel and biomass-based diesel require GHG thresholds of 60% and 50%, respectively. While we do not have a mechanism in place to determine if these thresholds have been met for RFS1 RINs generated in 2009 or early 2010, any shortfall in GHG performance for this one transition period is unlikely to have a significant impact on long-term GHG benefits of the program. Few stakeholders commented on our proposed treatment of RFS1 RINs under RFS2. Of those that did, most supported our proposed approach to the use of RFS1 RINs to meet RFS2 obligations. Based on our belief that it is critical to

[24] Note that we are finalizing an exception to this general prohibition for the specific and limited case of 2008 and 2009 biodiesel and renewable diesel RINs used to demonstrate compliance with both the 2009 total renewable fuel standard and the 2010 biomass-based diesel standard. *See* Section II.E.2.a.

the smooth operation of the program that excess 2009 RINs be allowed to be used for compliance purposes in 2010, we are allowing RFS1 RINs that were generated in 2009 or 2010 representing cellulosic biomass ethanol to be valid for use in satisfying the 2010 cellulosic biofuel standard. Likewise, we are allowing RFS1 RINs that were generated in 2009 or 2010 representing biodiesel and renewable diesel to be valid for use in satisfying the 2010 biomass-based diesel standard.

Consistent with our proposal, we have used information contained in the RR and D codes of RFS1 RINs to determine how those RINs should be treated under RFS2. The RR code is used to identify the Equivalence Value of each renewable fuel, and under RFS1 these Equivalence Values are unique to specific types of renewable fuel. For instance, biodiesel (mono alkyl ester) has an Equivalence Value of 1.5, and non-ester renewable diesel has an Equivalence Value of 1.7, and both of these fuels may be valid for meeting the biomass-based diesel standard under RFS2. Likewise, RINs generated for cellulosic biomass ethanol under RFS1 regulations must be identified with a D code of 1, and these fuels will be valid for meeting the cellulosic biofuel standard under RFS2. Our final treatment of RFS1 RINs for compliance under RFS2 is shown in Table II.G.4.a–1.

TABLE II.G.4.a–1—TREATMENT OF RFS1 RINS FOR RFS2 COMPLIANCE PURPOSES

RINs generated under RFS1 [a]	Treatment under RFS2 [b]
Any RIN with D code of 2 and RR code of 15 or 17	Equivalent to RFS2 RINs with D code of 4.
All other RINs with D code of 2	Equivalent to RFS2 RINs with D code of 6.
Any RIN with D code of 1	Equivalent to RFS2 RINs with D code of 3.

[a] *See* RFS1 RIN code definitions at § 80.1125.
[b] *See* RFS2 RIN code definitions at § 80.1425.

b. Deficit Carryovers From the RFS1 Program to RFS2

The calculation of RVOs in 2010 under the RFS2 regulations will be somewhat different than the calculation of RVOs in 2009 under RFS1. In particular, 2009 RVOs were based on gasoline production only, while 2010 RVOs will be based on volumes of gasoline and diesel. As a result, 2010 compliance demonstrations that include a deficit carried over from 2009 will combine obligations calculated on two different bases.

We do not believe that deficits carried over from 2009 to 2010 will undermine the goals of the program in requiring specific volumes of renewable fuel to be used each year. Although RVOs in 2009 and 2010 will be calculated differently, obligated parties must acquire sufficient RINs in 2010 to cover any deficit carried over from 2009 in addition to that portion of their 2010 obligation which is based on their 2010 gasoline and diesel production. As a result, the 2009 nationwide volume requirement of 11.1 billion gallons of renewable fuel will be consumed over the two year period concluding at the end of 2010. Thus, we are not implementing any special treatment for deficits carried over from 2009 to 2010.

A deficit carried over from 2009 to 2010 will only affect a party's total renewable fuel obligation in 2010, as the 2009 obligation is for total renewable fuel use, not a subcategory. The RVOs for biomass-based diesel or advanced biofuel will not be affected, as they do not have parallel obligations in 2009 under RFS1.[25]

[25] There is no cellulosic biofuel standard for 2010.

H. Separation of RINs

As we proposed in the NPRM, we are requiring the RFS1 provisions regarding the separation of RINs from volumes of renewable fuel to be retained for RFS2. However, the modifications in EISA required changes to the treatment of RINs associated with nonroad renewable fuel and renewable fuels used in heating oil and jet fuel. Our approach to the separation of RINs by exporters must also be modified to account for the fact that there would be four categories of renewable fuel under RFS2.

1. Nonroad

Under RFS1, RINs associated with renewable fuels used in nonroad vehicles and engines downstream of the renewable fuel producer were required to be retired by the party who owned the renewable fuel at the time of blending. This provision derived from the EPAct definition of renewable fuel which was limited to fuel used to replace fossil fuel used in a motor vehicle. However, EISA expands the definition of renewable fuel, and ties it to the definition of transportation fuel which is defined as any "fuel for use in motor vehicles, motor vehicle engines, nonroad vehicles, or nonroad engines (except for ocean-going vessels)." To implement these changes, the RFS2 program eliminates the RFS1 RIN retirement requirement for renewable fuels used in nonroad applications, with the exception of RINs associated with renewable fuels used in ocean-going vessels.

Since RINs have a valid life of two years, the NPRM proposed that a 2009 RFS1 RIN that is retired because the renewable fuel associated with it was used in nonroad vehicles or engines could be reinstated in 2010 for use in compliance with the 2010 standards. Stakeholders supported this approach, and we are finalizing it in today's action.

2. Heating Oil and Jet Fuel

EISA defines "additional renewable fuel" as "fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in home heating oil or jet fuel."[26] While we are not requiring fossil-based heating oil and jet fuel to be included in the fuel used by a refiner or importer to calculate their RVOs, we are allowing renewable fuels used as or in heating oil and jet fuel to generate RINs. Similarly, RINs associated with a renewable fuel, such as biodiesel, that is blended into heating oil will continue to be valid for compliance purposes. *See* also discussion in Section II.B.1.e.

3. Exporters

Under RFS1, exporters were assigned an RVO representing the volume of renewable fuel that was exported, and they were required to separate all RINs that were assigned to fuel that was exported. Since there was only one standard, there was only one possible RVO applicable to exporters.

Under RFS2, there are four possible RVOs corresponding to the four categories of renewable fuel (cellulosic biofuel, biomass-based diesel, advanced biofuel, and total renewable fuel). However, given the fungible nature of the RIN system and the fact that an

[26] EISA, Title II, Subtitle A—Renewable Fuel Standard, Section 201.

assigned RIN transferred with a volume of renewable fuel may not be the same RIN that was originally generated to represent that volume, RINs from different fuel types can accompany volumes. Thus, there may be no way for an exporter to determine from an assigned RIN which of the four categories applies to an exported volume. In order to determine its RVOs, the only information available to the exporter may be the type of renewable fuel that he is exporting.

However, if an exporter knows, or has reason to know, that the renewable fuel that it is exporting is either cellulosic biofuel or advanced biofuel, we are requiring the exporter to determine an RVO for the exported fuel based upon these fuel types. For instance, if an exporter purchases cellulosic biofuel or advanced biofuel directly from a producer or if the fuel has been segregated from other fuels, we would expect the exporter to know or have reason to know the type of fuel that it is exporting. Another example of when we would expect an exporter to know or have reason to know that the fuel that it is exporting is cellulosic or advanced biofuel would be if the commercial documents that accompany the purchase or sale of the renewable fuel identify the product as cellulosic or advanced biofuel.

EPA recognizes that in many situations, exporters will not know or have reason to know which of the four categories of renewable fuel apply to the exported fuel. If this is the case, we are requiring exporters to follow the approach proposed in the NPRM. Exported volumes of biodiesel (mono alkyl esters) and renewable diesel must be used to determine the exporter's RVO for biomass-based diesel. For all other types of renewable fuel, the most likely category is general renewable fuel. Thus, we are requiring that all renewable fuels be used to determine the exporter's RVO for total renewable fuel. Our final approach is provided at § 80.1430.

In the NPRM we took comment on an alternative approach in which the total nationwide volumes required in each year (*see* Table I.A.1–1) would be used to apportion specific types of renewable fuel into each of the four categories. For example, exported ethanol may have originally been produced from cellulose to meet the cellulosic biofuel requirement, from corn to meet the total renewable fuel requirement, or may have been imported as advanced biofuel. If ethanol were exported, we could divide the exported volume into three RVOs for cellulosic biofuel, advanced biofuel, and total renewable fuel using the same proportions represented by the national volume requirements for that year. However, as described in the NPRM, we believe that this alternative approach would have added considerable complexity to the compliance determinations for exporters without necessarily adding more precision. Given the expected small volumes of exported renewable fuel, we continue to believe that this added complexity is not warranted at this time.

As described above, exporters must separate any RINs assigned to renewable fuel that they export. However, since RINs are fungible and the owner of a batch of renewable fuel has the flexibility to assign between zero and 2.5 gallon-RINs to each gallon, we have made this flexibility explicit for exporters. Thus, an exporter can separate up to 2.5 gallon-RINs for each gallon of renewable fuel that he exports. While the exporter is not required to retain these separated RINs for use in complying with his RVOs calculated on the basis of the exported volumes, this would be the most straightforward approach and would ensure that the exporter has sufficient RINs to comply. However, we are aware of some exporters who sell RINs that they separate as a source of revenue, with the intention to purchase replacement RINs on the open RIN market later in the year to comply with their RVOs. At this time we are not aware of such activities resulting in noncompliance, and thus the RFS2 regulations promulgated today will continue to allow this. However, we may revisit this issue in the future if there is evidence that exporters are failing to comply because they are selling RINs that they separate from exported volumes.

4. Requirement To Transfer RINs With Volume

In the NPRM, we proposed that the approach to RIN transfers established under RFS1—that RINs generated by renewable fuel producers and importers must be assigned to batches of renewable fuel and transferred along with those batches—be continued under RFS2. However, given the higher volumes required under RFS2 and the resulting expansion in the number of regulated parties, we also took comment on two alternative approaches to RIN transfers. Along with the alternative approaches for designation of obligated parties as described in Section II.G.1 above, a change to the requirement to transfer RINs with batches had the potential to more evenly align a party's access to RINs with that party's obligations under the RFS2 program. Nevertheless, for the reasons described below, we have determined that it would not be appropriate to implement these alternative approaches at this time.

In the first alternative approach, we would have removed the restriction established under the RFS1 rule requiring that RINs be assigned to batches of renewable fuel and transferred with those batches. Instead, renewable fuel producers could have sold RINs (with a K code of 2 rather than 1) separately from volumes of renewable fuel to any party.

In the second alternative approach, producers and importers of renewable fuels would be required to separate and transfer the RIN, but only to an obligated party. This "direct transfer" approach would require renewable fuel producers to transfer RINs with renewable fuel for all transactions with obligated parties, and sell all other RINs directly to obligated parties on a quarterly basis for any renewable fuel volumes that were not sold directly to obligated parties. Any RINs not sold in this way would be required to be offered for sale to any obligated party through a public auction. Only renewable fuel producers, importers, and obligated parties would be allowed to own RINs.

Many renewable fuel producers supported the concept of allowing them to separate the RINs from renewable fuel that they produce. They generally argued in favor of a free market approach to RINs in which there would be no restrictions on whom they could sell RINs to, or in what timeframe. The direct transfer approach was unnecessary, they argued, since the market would compel them to sell all RINs they generated, and all RINs would eventually end up in the hands of the obligated parties that need them. However, other renewable fuel producers opposed any change to the requirement that RINs be assigned to volumes of renewable and transferred with those volumes through the distribution system. They argued that the system established under RFS1 has proven to work and it would create an unwarranted burden to require producers to modify their IT systems for RFS2.

Marketers and distributors were generally opposed to our proposed alternative approaches to RIN transfers. Moreover, SIGMA and NACS, as in the RFS1 rulemaking process, recommended that RINs not be generated by producers at all, but rather by the party that blends renewable fuel into gasoline or diesel, or uses renewable fuel in its neat form as a transportation fuel.

Obligated parties generally opposed any change to the RFS1 requirement that RINs be assigned to volumes of renewable fuel by the producer or importer, and transferred with volumes through the distribution system. They reiterated their concern, first raised in the RFS1 rulemaking, that a free market approach would place them at greater risk of market manipulation by renewable fuel producers. Moreover, while generally expressing support for the concept of a direct transfer approach, they also expressed doubt that the auctions could be regulated in such a way as to ensure that RIN generators could not withhold RINs from the market by such means as failing to adequately advertise the time and location of an auction, by setting the selling price too high, by specifying a minimum number of bids before selling, by conducting auctions infrequently, by having unduly short bidding windows, etc. These concerns were exacerbated by the nested standards required by EISA, under which many obligated parties have expressed concern about being able to acquire sufficient RINs for compliance.

Given the significant challenges associated with a change to the requirement that RINs be transferred with volume and the opposing views among stakeholders, we are not making any change in today's final rule.

5. Neat Renewable Fuel and Renewable Fuel Blends Designated as Transportation Fuel, Heating Oil, or Jet Fuel

Under RFS1, RINs must, with limited exceptions, be separated by an obligated party taking ownership of the renewable fuel, or by a party that blends renewable fuel with gasoline or diesel. In addition, a party that designates neat renewable fuel as motor vehicle fuel may separate RINs associated with that fuel if the fuel is in fact used in that manner without further blending. One exception to these provisions is that biodiesel blends in which diesel constitutes less than 20 volume percent are ineligible for RIN separation by a blender. While EPA understands that in the vast majority of cases, biodiesel is blended with diesel in concentrations of 80 volume percent or less, there may be instances in which biodiesel is blended with diesel in concentrations of more than 80 percent biodiesel, but the blender is prohibited from separating RINs under the RFS1 regulations.

Thus, in order to account for situations in which biodiesel blends of 81 percent or greater may be used as transportation fuel, heating oil, or jet fuel without ever having been owned by an obligated party, EPA proposed, and is finalizing a change to the applicability of the RIN separation provisions for RFS2. Section 80.1429(b)(4) will allow for separation of RINs for neat renewable fuel or blends of renewable fuel and diesel fuel that the party designates as transportation fuel, heating oil, or jet fuel, provided the neat renewable fuel or blend is used in the designated form, without further blending, as transportation fuel, heating oil, or jet fuel. Those parties that blend renewable fuel with gasoline or diesel fuel (in a blend containing 80 percent or less biodiesel) must separate RINs pursuant to § 80.1429(b)(2).

Thus, for example, if a party intends to separate RINs from a volume of B85, the party must designate the blend for use as transportation fuel, heating oil, or jet fuel and the blend must be used in its designated form without further blending. The party is also required to maintain records of this designation pursuant to § 80.1454(b)(5). Finally, the party is required to comply with the proposed PTD requirements in § 80.1453(a)(11)(iv), which serve to notify downstream parties that the volume of fuel has been designated for use as transportation fuel, heating oil, or jet fuel, and must be used in that designated form without further blending. Parties may separate RINs at the time they comply with the designation and PTD requirements, and do not need to physically track ultimate fuel use.

I. Treatment of Cellulosic Biofuel

1. Cellulosic Biofuel Standard

EISA requires that the Administrator set the cellulosic biofuel standard each November for the next year based on the lesser of the volume specified in the Act or the projected volume of cellulosic biofuel production based on EIA estimates for that year. In the event that the projected volume is less than the amount required in the Act, EPA may also reduce the applicable volume of the total renewable fuel and advanced biofuels requirement by the same or a lesser volume. We will examine EIA's projected volumes and other available data including the required production outlook reports discussed in Section II.K to decide the appropriate standard for the following year. The outlook reports from all renewable fuel producers will assist EPA in determining what the cellulosic biofuel standard should be and if the total renewable fuel and/or advanced biofuel standards should be adjusted. For years where EPA determines that the projected volume of cellulosic biofuels is not sufficient to meet the levels in EISA we will consider the availability of other advanced biofuels in deciding whether to lower the advanced biofuel standard as well.

In determining whether the advanced biofuel and/or total renewable fuel volume requirements should also be adjusted downward in the event that projected volumes of cellulosic biofuel fall short of the statutorily required volumes, we believe it may be appropriate to allow excess advanced biofuels to make up some or all of the shortfall in cellulosic biofuel. For instance, if we determined that sufficient biomass-based diesel was available, we could decide that the required volume of advanced biofuel need not be lowered, or that it should be lowered to a smaller degree than the required cellulosic biofuel volume. Thus, the Act requires EPA to examine the total and advanced renewable fuel standards and volumes in the event of a cellulosic volume waiver. EPA will look at projections for each year on an individual yearly basis to determine if the standards should be adjusted. EPA believes that since the standards are nested and the total and advanced renewable fuel volume mandates are met in part by the cellulosic volume mandate, Congress gave EPA the flexibility to lower the required total and advanced volumes, but Congress also wanted to encourage the development of advanced renewable fuels as well and allow in appropriate circumstances for the use of those fuels in the event they can meet that year's required volumes that would have been met by the cellulosic mandate.

2. EPA Cellulosic Biofuel Waiver Credits for Cellulosic Biofuel

Whenever EPA sets the cellulosic biofuel standard at a level lower than that required in EISA, but greater than zero, EPA is required to provide a number of cellulosic credits for sale that is no more than the volume used to set the standard. Congress also specified the price for such credits: Adjusted for inflation, they must be offered at the price of the higher of 25 cents per gallon or the amount by which $3.00 per gallon exceeds the average wholesale price of a gallon of gasoline in the United States. The inflation adjustment will be for years after 2008. The inflation adjustment will be based on the standard US inflation measure Consumer Price Index for All Urban Consumers (CPI–U) for All Items

expenditure category as provided by the Bureau of Labor Statistics.[27]

Congress afforded the Agency considerable flexibility in implementing the system of cellulosic biofuel credits. EISA states EPA; "shall include such provisions, including limiting the credits' uses and useful life, as the Administrator deems appropriate to assist market liquidity and transparency, to provide appropriate certainty for regulated entities and renewable fuel producers, and to limit any potential misuse of cellulosic biofuel credits to reduce the use of other renewable fuels, and for such other purposes as the Administrator determines will help achieve the goals of this subsection."

We have fashioned a number of limitations on the use of cellulosic that reflect these considerations. Specifically, the credits will be called "Cellulosic Biofuel Waiver Credits" (or "waiver credits") so that there is no confusion with RINs or allowances used in the acid rain program. Such waiver credits will only be available for the current compliance year for which we have waived some portion of the cellulosic biofuel standard, they will only be available to obligated parties, and they will be nontransferable and nonrefundable. Further, obligated parties may only purchase waiver credits up to the level of their cellulosic biofuel RVO less the number of cellulosic biofuel RINs that they own. A company owning cellulosic biofuel RINs and cellulosic waiver credits may use both types of credits if desired to meet their RVOs, but unlike RINs obligated parties will not be able to carry waiver credits over to the next calendar year. Obligated parties may not use waiver credits to meet a prior year deficit obligation. These restrictions help ensure that waiver credits are not overutilized at the expense of actual renewable volume.

In the NPRM, EPA proposed that the credits could be usable for the advanced and total renewable standards similarly to cellulosic biofuel RINs. Several commenters stated this provision could displace advanced and total renewable fuel that was actually produced which would be against the intent of the Act, and that unlike RINs a company should only be permitted to use waiver credits to meet its cellulosic biofuel obligation. We agree, and are limiting the use of waiver credits for compliance with only a company's cellulosic biofuel RVO.

In the event the total volume of conventional gasoline and diesel fuel produced or imported in the country exceeds the projections used to set the standard, companies will still be able to purchase waiver credits up to their cellulosic volume obligation. When setting a reduced cellulosic biofuel standard EPA makes a determination that the cellulosic volume specified in EISA will not be met and that determination is not based on how much nonrenewable motor fuel will be produced. EPA sets the standard based on the volumes in the Act and a projection of gasoline production to ensure the obligation is broken up most equitably. EPA believes that Congress wanted all obligated parties to have equal access to the waiver credits in the event of the waiver and did not want obligated parties to incur a deficit due to the timing of when they purchased waiver credits.

Cellulosic Biofuel Waiver Credits, in the event of a waiver, will be offered in a generic format rather than a serialized format, like RINs. Waiver credits can be purchased using procedures defined by the EPA, and at the time that an obligated party submits its annual compliance demonstration to the EPA and establishes that it owns insufficient cellulosic biofuel RINs to meet its cellulosic biofuel RVO. EPA will define these procedures with the U.S. Treasury before the end of the first annual compliance period. EPA will publish these procedures with the obligated party annual compliance report template. EPA will provide the forms necessary to purchase the credits. EPA intends to provide options for obligated parties to use Pay.Gov or if desired to mail payment to the U.S. Treasury.

The wholesale price of gasoline used by EPA in setting the price of the waiver credits will be based on the average monthly bulk (refinery gate) price of gasoline using data from the most recent twelve months of data from EIA available to EPA at the time it develops the cellulosic biofuel standard.[28] EPA will use refinery gate price, U.S. Total Gasoline Bulk Sales (Price) by Refiners from EIA in calculating the average, since it is the price most reflective of what most obligated parties are selling their fuel. EPA will use the most recent twelve months of data provided by EIA to develop an average price on actual volumes produced in the year prior to the compliance year. In order to provide regulatory certainty, we will set the waiver credits price for the following year each November when and if we set a cellulosic biofuel standard for the following year that is based on achieving a lower volume of cellulosic biofuel use than is specified in EISA.

For the 2010 compliance period, since the cellulosic standard is lower than the level otherwise required by EISA, we are also making cellulosic waiver credits available to obligated parties for end-of-year compliance should they need them at a price of $1.56 per gallon-RIN." The price for the 2011 compliance period, if necessary will be set when we announce the 2011 cellulosic biofuel standard.

3. Application of Cellulosic Biofuel Waiver Credits

While the credit provisions of section 202(e) of EISA ensure that there is a predictable upper limit to the price that cellulosic biofuel producers can charge for a gallon of cellulosic biofuel and its assigned RIN, there may be circumstances in which this provision has other unintended consequences. This could occur in situations where the cost of total renewable fuel RINs exceeds the cost of the cellulosic waiver credits. To prevent this, we sought comment on and are finalizing an additional restriction: An obligated party may only purchase waiver credits from the EPA to the degree that it establishes it owns insufficient cellulosic biofuel RINs to meet its cellulosic biofuel RVO. This approach forces obligated parties to apply all their cellulosic biofuel RINs to their cellulosic biofuel RVO before applying any waiver credits to their cellulosic biofuel RVO.

Even with this restriction the approach in the NPRM might not have operated as intended. For instance, if the combination of cellulosic biofuel volume price and RIN price were to become low compared to that for general renewable fuel, a small number of obligated parties could have purchased more cellulosic biofuel than they need to meet their cellulosic biofuel RVOs and could have used the additional cellulosic biofuel RINs to meet their advanced biofuel and total renewable fuel RVOs. Other obligated parties would then have had no access to cellulosic biofuel volume nor cellulosic biofuel RINs, and would have been forced to purchase waiver credits from the EPA. This situation would have had the net effect of waiver credits replacing advanced biofuels and/or general renewable fuel rather than cellulosic biofuel. Based on comments received on the NPRM, EPA is placing the additional restriction of only allowing the waiver credits to count

[27] *See* U.S. Department of Labor, Bureau of Labor Statistics (BLS), Consumer Price Index Web site at: *http://www.bls.gov/cpi/.*

[28] More information on wholesale gasoline prices can be found on the Department of Energy's (DOE), Energy Information Administration's (EIA) Web site at: *http://tonto.eia.doe.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=A103B00002&f=M.*

towards the cellulosic biofuel standard and not the advanced or renewable fuel standards.

Moreover, under certain conditions it may be possible for the market price of general renewable fuel RINs to be significantly higher than the market price of cellulosic biofuel RINs, as the latter is limited in the market by the price of EPA-generated waiver credits according to the statutory formula described in Section II.I.2 above. Under some conditions, this could result in a competitive disadvantage for cellulosic biofuel in comparison to corn ethanol, for example. For instance, if gasoline prices at the pump are significantly higher than ethanol production costs, while at the same time corn-ethanol production costs are lower than cellulosic ethanol production costs, profit margins for corn-ethanol producers will be larger than for cellulosic ethanol producers. Under these conditions, while obligated parties may still purchase cellulosic ethanol volume and its associated RINs rather than waiver credits, cellulosic ethanol producers will realize lower profits than corn-ethanol producers due to the upper limit placed on the price of cellulosic biofuel RINs through the pricing formula for waiver credits. For a newly forming and growing cellulosic biofuel industry, this competitive disadvantage could make it more difficult for investors to secure funding for new projects, threatening the ability of the industry to reach the statutorily mandated volumes.

Finally, in the NPRM we sought comment on a "dual RIN" approach to cellulosic biofuel. In this approach, both cellulosic biofuel RINs (with a D code of 3) and waiver credits would have only been applied to an obligated party's cellulosic biofuel RVO, but producers of cellulosic biofuel would also generate an additional RIN representing advanced biofuel (with a D code of 5). The producer would have only been required to transfer the advanced biofuel RIN with a batch of cellulosic biofuel, and could retain the cellulosic biofuel RIN for separate sale to any party.[29] The cellulosic biofuel and its attached advanced biofuel RIN would then have competed directly with other advanced biofuel and its attached advanced biofuel RIN, while the separate cellulosic biofuel RIN would have an independent market value that would have been effectively limited by the pricing formula for waiver credits as described in Section II.I.2. However, this approach would have been a more significant deviation from the RIN generation and transfer program structure that was developed cooperatively with stakeholders during RFS1. It would have provided cellulosic biofuel producers with significantly more control over the sale and price of cellulosic biofuel RINs, which was one of the primary concerns of obligated parties during the development of RFS1. Therefore, EPA is treating the transfer of cellulosic RINs in the same manner as the other required volumes.

J. Changes to Recordkeeping and Reporting Requirements

1. Recordkeeping

Recordkeeping, including product transfer documents (PTDs), will support the enforcement of the use of RINs for compliance purposes. Parties are afforded significant freedom with regard to the form that PTDs take. Product codes may be used as long as they are understood by all parties, but they may not be used for transfers to truck carriers or to retailers or wholesale purchaser-consumers. Parties must keep copies of all PTDs they generate and receive, as well as copies of all reports submitted to EPA and all records related to the sale, purchase, brokering or transfer or RINs, for five (5) years. Parties must keep copies of records that relate to program flexibilities, such as small business-oriented provisions. Upon request, parties are responsible for providing their records to the Administrator or the Administrator's authorized representative. We reserve the right to request to receive documents in a format that we can read and use.

In Section III.A. of this preamble, we describe an EPA–Moderated Transaction System (EMTS) for RINs. The new system allows for "real-time" recording of transactions involving RINs.

2. Reporting

Producers and importers who generate or take ownership of RINs shall submit RIN Transaction Reports[30] and/or RIN Generation Reports quarterly. Renewable fuel exporters and obligated parties shall submit their RIN Transaction Reports quarterly, and RIN owners shall submit their RIN Transaction Reports quarterly. EMTS will be used by all parties to record "real time" generation of RINs and transactions involving RINs starting July 1, 2010. "Real time" means recordation within five (5) business days of generation or any transaction involving a RIN.

Quarterly reports are to be submitted on the following schedule. Quarterly reports include RIN Activity Reports and, with EMTS, simplified reporting and certification of the RIN Generation and RIN Transaction Reports.

TABLE II.J–1—QUARTERLY REPORTING SCHEDULE

Quarter covered by report	Due date for report
January–March	May 31.
April–June	August 31.
July–September	November 30.
October–December	February 28.

Annual reports (covering January through December) would continue to be due on February 28. The only annual report is the Obligated Party Annual Compliance Report.[31]

Simplified, secure reporting is currently available through our Central Data Exchange (CDX). CDX permits us to accept reports that are electronically signed and certified by the submitter in a secure and robustly encrypted fashion. Using CDX eliminates the need for wet ink signatures and reduces the reporting burden on regulated parties. EMTS will also make use of the CDX environment.

Due to the criteria that renewable fuel producers and importers must meet in order to generate RINs under RFS2, and due to the fact that renewable fuel producers and importers must have documentation about whether their feedstock(s) meets the definition of "renewable biomass," we proposed several changes to the RIN Generation Report.[32] We proposed to make the report a more general report on renewable fuel production in order to capture information on all batches of renewable fuel, whether or not RINs are generated for them. This final rule adopts the proposed approach. All renewable fuel producers and importers above 10,000 gallons per year must report to EPA on each batch of their fuel and indicate whether or not RINs are generated for the batch. If RINs are generated, the producer or importer is required to certify that his feedstock meets the definition of "renewable biomass." If RINs are not generated, the producer or importer must state the reason for not generating RINs, such as they have documentation that states that

[29] The cellulosic biofuel RIN would be a separated RIN with a K code of 2 immediately upon generation.

[30] For ease of reference, the current RFS (i.e. RFS1) form may be viewed at the EPA Fuels Reporting Web site at the following URL: *http://www.epa.gov/otaq/regs/fuels/rfsforms.htm* (accessed November 16, 2009). These forms will be updated for RFS2.

[31] For RFS1, this form is numbered RFS0300.

[32] For RFS1, this form is numbered RFS0400.

their feedstock did not meet the definition of "renewable biomass," or the fuel pathway used to produce the fuel was such that the fuel did not qualify to generate RINs as a renewable fuel. For each batch of renewable fuel produced, we require information about the types and volumes of feedstock used and the types and volumes of co-products produced, as well as information about the process or processes used. This information is necessary to confirm that the producer or importer assigned the appropriate D code to their fuel and that the D code was consistent with their registration information. In this final rule, we adopt the approach set forth in the notice of proposed rulemaking.

In addition, we proposed two changes for the RIN Transaction Report.[33] First, for reports of RINs assigned to a volume of renewable fuel, the volume of renewable fuel must be reported. Second, RIN price information must be submitted for transactions involving both separated RINs and RINs assigned to a renewable volume. This information was not collected under RFS1, but because we believe this information has great programmatic value to EPA, we proposed to collect it for RFS2. As we explained in the proposed rule, price information may help us to anticipate and appropriately react to market disruptions and other compliance challenges, will be beneficial when setting future renewable standards, and will provide additional insight into the market when assessing potential waivers. Our incomplete knowledge regarding RIN pricing for RFS1 adversely affected our ability to assess the general health and direction of the market and overall liquidity of RINs. Because we believe the inclusion of price information in reports will be beneficial to both EPA and to regulated parties, this final rule includes that information element in reports, as well as incorporating it as part of the "real time" transactional information collected via EMTS.

3. Additional Requirements for Producers of Renewable Natural Gas, Electricity, and Propane

In addition to the general reporting requirement listed above, we are requiring an additional item of reporting for producers of renewable natural gas, electricity, and propane who choose to generate and assign RINs. While producers of renewable natural gas, electricity, and propane who generate and assign RINs are responsible for filing the same reports as other producers of RIN-generating renewable fuels, we are requiring that additional reporting for these producers support the actual use of their products in the transportation sector. We believe that one simple way to achieve this may be to add a requirement that producers of renewable natural gas, electricity, and propane add the name of the purchaser (*e.g.,* the name of the wholesale purchaser-consumer (WPC) or fleet) to their RIN generation reports and then maintain appropriate records that further identify the purchaser and the details of the transaction. We are not requiring that a purchaser who is either a WPC or an end user would have to register under this scenario, unless that party engages in other activities requiring registration under this program.

4. Attest Engagements

The purpose of an attest engagement is to receive third party verification of information reported to EPA. An attest engagement, which is similar to a financial audit, is conducted by a Certified Public Accountant (CPA) or Certified Independent Auditor (CIA) following agreed-upon procedures. We have found the information in attest engagements submitted under RFS1 to be extremely valuable as a compliance monitoring tool. The approach adopted in this final rule is identical to the approach adopted under the RFS1 program,[34] although the universe of obligated parties and renewable fuels producers is broader under this final rule for RFS2.

As with the RFS1 program, an attest engagement must be conducted by an individual who is a Certified Public Accountant (CPA) or Certified Internal Auditor (CIA), who is independent of the party whose records are being reviewed, and who will follow agreed-upon procedures to determine whether underlying records, reported items, and transactions agree. The CPA or CIA will generate a report as to their findings.

We have received numerous questions and comments related to how attest engagements apply to foreign companies and whether or not a foreign accountant may perform the required agreed-upon procedures. EPA will accept an attest engagement performed by a foreign accountant who holds an equivalent credential to an American CPA or CIA. A written explanation as to the foreign accountant's qualifications and the equivalency of the credential must accompany the attest engagement.

Producers of renewable fuels, obligated parties, exporters, and any party who owns RINs must arrange for an annual attest engagement. The attest engagement report for any given year must be submitted to EPA by no later than May 31 of the following year. Section 80.1464 of the regulations specifies the attest engagement procedures to be followed.

K. Production Outlook Reports

Under this program we are requiring the submission, starting in 2010, of annual production outlook reports from all domestic renewable fuel producers, foreign renewable fuel producers who register to generate RINs, and importers of renewable fuels. These production outlook reports will be similar in nature to the pre-compliance reports required under the Highway and Nonroad Diesel programs. These reports will contain information about existing and planned production capacity, long-range plans, and feedstocks and production processes to be used at each production facility. For expanded production capacity that is planned or underway at each existing facility, or new production facilities that are planned or underway, the progress reports will require information on: (1) Strategic planning; (2) Planning and front-end engineering; (3) Detailed engineering and permitting; (4) Procurement and construction; (5) Commissioning and startup; (6) Projected volumes; (7) Contracts currently in place (feedstocks, sales, delivery, etc.); and (8) Whether or not feedstocks have been purchased. The first five project phases are described in EPA's June 2002 Highway Diesel Progress Review report (EPA document number EPA420–R–02–016, located at: *www.epa.gov/otaq/regs/hd2007/420r02016.pdf*). In the proposed rule, we asked for comment on the first five project phases, and whether or not they were appropriate for renewable fuels production. We also proposed additional phases in order to provide better specificity for ascertaining industry status. EPA plans to use this information in order to provide annual summary reports regarding such planned capacity.

The full list of requirements for the production outlook reports is provided in the regulations at § 80.1449. The information submitted in the reports will be used to evaluate the progress that the industry is making towards the renewable fuels volume goals mandated by EISA. They will help EPA set the annual cellulosic biofuel standard and consider whether waivers would be

[33] For RFS1, this form is numbered RFS0200.

[34] *See* "Regulation of Fuel and Fuel Additives: Renewable Fuel Standard Program," 72 FR 23900, 23949–23950 (May 1, 2007) for a detailed discussion of attest engagement requirements under RFS1.

appropriate with respect to the advanced biofuel, biomass-based diesel, and total renewable fuel standards (*see* Section II.I of this preamble for more discussion on this). Production outlook reports will be due annually by March 31 (except that for the year 2010, the report will be due September 1) and each annual report must provide projected information, including any updated information from the previous year's report.

As mentioned in the preamble to the proposed rule, EPA currently receives data on projected flexible-fuel vehicle (FFV) sales and conversions from vehicle manufacturers. These are helpful in providing EPA with information regarding the potential market for renewable fuels. We requested comment on whether we should require the annual submission of data to facilitate our evaluation of the ability of the distribution system to deliver the projected volumes of biofuels to petroleum terminals that are needed to meet the RFS2 standards, the extent to which such information is already publicly available or can be purchased from a proprietary source, and the extent to which such publicly available or purchasable data would be sufficient for EPA to make its determination. We further requested comment on the parties that should be required to report to EPA, and data requirements. We believe that publicly available information on E15, E85, and other refueling facilities is sufficient for us to make a determination about the adequacy of such facilities to support the projected volumes that would be used to satisfy the RFS2 standards. Therefore, we are not finalizing such a requirement.

While we understand that the types of projections we request in the Outlook Reports could be somewhat speculative in nature, we believe that the projections will provide us with the most reliable information possible to inform the annual RFS standards and waiver considerations. Further, we believe this information will be more useful to us than other public information that is released in other contexts (*e.g.,* announcements for marketing purposes). As mentioned above in Section II.I, we believe that we can use this information to supplement other available information (such as volume projections from EIA) to help set the standard for the following year. Specifically, it will provide more accurate information for setting the cellulosic biofuel and biomass-based diesel standards, and any adjustments to the advanced biofuel and total renewable fuel standards.

We received comments that both support and oppose the Production Outlook Reports, or some element of them. One commenter stated that EPA provided no reasonable explanation to require the information being requested for the reports; the commenter further stated that such information is not needed to assist parties to come into compliance. Another commenter stated that the renewable fuels industry cannot confidently project what will happen in 2010, or even 2020, because there are too many unknowns, no previous history of renewable fuels mandates, and no sense of continued tax rebate. The commenter suggested that until the industry operates for a few years under the RFS2 carve-outs and the issues on the tax rebates for renewables are resolved, the industry cannot develop a meaningful outlook forecast. The commenter further suggested that EPA instead hire a consultant who can look at the big picture and provide a more meaningful evaluation than could the individual members of the biofuels industry. However, as discussed above, while these reports will have their limitations, we believe they will provide the best and most up to date information available for us to use in setting the standards and considering any waiver requests. We will of course also look to other publicly available information, and may consider using contractors to help out in this regard, but it cannot replace the need for the production outlook report data.

A commenter noted that this provision is similar to reports required under the diesel program. The commenter further stated that if the required information can be captured by EMTS, the commenter fully supports this requirement. However, the commenter stated that it is opposed to some of the required elements of the reports for planned expanded or new production (strategic planning, planning and front-end engineering, detailed engineering and permitting, procurement and construction, and commissioning and start-up); these are an aspect of financial planning that the commenter believes EPA has no jurisdiction over and cannot derive basis from EISA in any form regardless of interpretation. As explained above, this information will be used by EPA to inform us for setting the standards on an annual basis and in responding to any waiver petitions. It will not be used to assess compliance with the program. The other provisions for registration, recordkeeping and reporting serve that purpose.

Another commenter stated that the reports should be required, but that EPA should not rely too heavily upon the data (particularly for new biofuel technologies). Some commenters noted that they believe that requiring Production Outlook Reports is duplicative in nature and/or a burden to the industry. These commenters also believe that EPA already receives such information through the reporting that currently exists, and that EPA could also obtain this information from DOE's Energy Information Administration (EIA) and the National Biodiesel Board (NBB). Other commenters expressed concern over reporting such confidential and strategic information (even as confidential business information (CBI)), and that information out to 2022 seems excessive and useless; and that the reports should be limited to just domestic and foreign producers of renewable fuels but not importers (as they tend to import renewable fuels based on variable economic conditions and will not likely have the ability to reliably predict their future import volumes). The information that currently exists from other sources is current and historical information. For the purposes of setting future standards, we need to have information on future plans and projections. We understand that reality will always be different from the projections, but they will still give us the best possible source of information. Furthermore, by having projections five years out into the future, and then obtaining new reports every year, we will be able to assess the trends in the data and reports to better utilize them over time.

Some commenters have expressed concern that the information required for Production Outlook Reports is not needed, won't provide useful information because it is speculative, or asks for information that could be sensitive/confidential. However, we continue to believe that such information is essential to our annual cellulosic biofuel standard setting, and consideration of whether waivers should be provided for other standards. All information submitted to EPA will be treated as confidential business information (CBI), and if used by EPA in a regulatory context will only be reported out in very general terms. As with our Diesel Pre-compliance Reports, we fully expect that the information will be somewhat speculative in the early reports, and we will weight it accordingly. As the program progresses, however, information submitted for the reports will continue to improve. We believe that any information, whether speculative or concrete, will be helpful for the purposes described above. Thus

we are finalizing Production Outlook Reports, and the required elements at § 80.1449.

L. What Acts Are Prohibited and Who Is Liable for Violations?

The prohibition and liability provisions under this rule are similar to those of the RFS1 program and other fuels programs in 40 CFR part 80. The rule identifies certain prohibited acts, such as a failure to acquire sufficient RINs to meet a party's RVOs, producing or importing a renewable fuel that is not assigned a proper RIN category (or D Code), improperly assigning RINs to renewable fuel that was not produced with renewable biomass, failing to assign RINs to qualifying fuel, or creating or transferring invalid RINs. Any person subject to a prohibition is liable for violating that prohibition. Thus, for example, an obligated party is liable if the party failed to acquire sufficient RINs to meet its RVO. A party who produces or imports renewable fuels is liable for a failure to assign proper RINs to qualifying batches of renewable fuel produced or imported. Any party, including an obligated party, is liable for transferring a RIN that was not properly identified.

In addition, any person who is subject to an affirmative requirement under this program is liable for a failure to comply with the requirement. For example, an obligated party is liable for a failure to comply with the annual compliance reporting requirements. A renewable fuel producer or importer is liable for a failure to comply with the applicable batch reporting requirements. Any party subject to recordkeeping or product transfer document (PTD) requirements is liable for a failure to comply with these requirements. Like other EPA fuels programs, this rule provides that a party who causes another party to violate a prohibition or fail to comply with a requirement may also be found liable for the violation.

EPAct amended the penalty and injunction provisions in section 211(d) of the Clean Air Act to apply to violations of the renewable fuels requirements in section 211(o). Accordingly, any person who violates any prohibition or requirement of this rule is subject to civil penalties of up to $37,500 per day and per each individual violation, plus the amount of any economic benefit or savings resulting from each violation. Under this rule, a failure to acquire sufficient RINs to meet a party's renewable fuels obligation constitutes a separate day of violation for each day the violation occurred during the annual averaging period.

As discussed above, the regulations prohibit any party from creating or transferring invalid RINs. These invalid RIN provisions apply regardless of the good faith belief of a party that the RINs are valid. These enforcement provisions are necessary to ensure the RFS2 program goals are not compromised by illegal conduct in the creation and transfer of RINs.

As in other motor vehicle fuel credit programs, the regulations address the consequences if an obligated party is found to have used invalid RINs to demonstrate compliance with its RVO. In this situation, the obligated party that used the invalid RINs will be required to deduct any invalid RINs from its compliance calculations. An obligated party is liable for violating the standard if the remaining number of valid RINs was insufficient to meet its RVO, and the obligated party might be subject to monetary penalties if it used invalid RINs in its compliance demonstration. In determining what penalty is appropriate, if any, we would consider a number of factors, including whether the obligated party did in fact procure sufficient valid RINs to cover the deficit created by the invalid RINs, and whether the purchaser was indeed a good faith purchaser based on an investigation of the RIN transfer. A penalty might include both the economic benefit of using invalid RINs and/or a gravity component.

Although an obligated party is liable under our proposed program for a violation if it used invalid RINs for compliance purposes, we would normally look first to the generator or seller of the invalid RINs both for payment of penalty and to procure sufficient valid RINs to offset the invalid RINs. However, if, for example, that party was out of business, then attention would turn to the obligated party who would have to obtain sufficient valid RINs to offset the invalid RINs.

III. Other Program Changes

In addition to the regulatory changes we are finalizing today in response to comments received on the proposed rule and EISA (which are designed to implement the provisions of RFS2), there are a number of other changes to the RFS program that we are making. We believe that these changes will increase flexibility, simplify compliance, or address RIN transfer issues that have arisen since the start of the RFS1 program. Throughout the rulemaking process, we also investigated impacts on small businesses and we are finalizing provisions to address the impacts of the program on them.

A. The EPA Moderated Transaction System (EMTS)

The EPA Moderated Transaction System (EMTS) emerged as a result of our experiences with and lessons learned from implementing RFS1. Recognizing that the addition of significant volumes of renewable fuels and expansion of renewable fuel categories were adding complexity to an already stressed system, EMTS was introduced as a new approach for managing RINs in our NPRM. We received broad acceptance of the EMTS concept in the public comments as well as support for its expeditious implementation. This section describes the need for EMTS, implementation of EMTS, and an explanation of how EMTS will work. By implementing EMTS, we believe that we will be able to greatly reduce RIN-related errors while efficiently and accurately managing the universe of RINs. EMTS will save considerable time and resources for both industry and EPA. This is most evident considering that the system virtually eliminates multiple sources of administrative errors, resulting in a reduction of costs and effort expended to correct and regenerate product transfer documents, documentation and recordkeeping, and resubmitting reports to EPA. Use of EMTS will result in fewer report resubmissions and easier reporting for industry, while leaving fewer reports to be processed by EPA. Industry will spend less time and effort validating the RINs they procure with greater assurance and confidence in the RIN market. EPA will spend less time tracking down invalid RINs and working with regulated parties on complex remedial actions. This is possible because EMTS removes management of the 38-digit RIN from the hands of the reporting community. At the same time, EPA and the reporting community will be working with a standardized system, reducing stresses and development costs on IT systems.

We received comments suggesting that EPA remove the attest engagement requirements and certain recordkeeping requirements due to the use of EMTS. While we believe that EMTS will simplify and reduce burdens on the regulated community, it is important to point out that EMTS is strictly a RIN tracking and managing tool designed to facilitate reporting under the Renewable Fuel Standard program. Product transfer documents are the commercial documents used to memorialize transactions of RINs between a buyer and a seller in the market. The EMTS will rely on references to these

documents, which can take many forms, but it is not capable of replacing those documents. Attest engagements are used to verify that the records required to be kept by regulated parties, including information retained by a regulated party as well as information reported to EPA such as laboratory test results, contracts between renewable fuel/RIN buyers and sellers, feedstock documentation, etc. is correctly maintained or reported. The information reported via EMTS is but a subset of the information required to be maintained in a regulated party's records, and both PTDs and attest engagements are necessary to ensure that the information collected and tracked in EMTS concurs with actual events.

1. Need for the EPA Moderated Transaction System

In implementing RFS1, we found that the 38-digit standardized RINs proved to be confusing to many parties in the distribution chain. Parties made various errors in generating and using RINs. For example, parties transposed digits within the RIN and incorrectly referenced volume numbering. Also, parties created alphanumeric RINs, despite the fact that RINs were supposed to consist of all numbers.

Once an error is made within a RIN, the error propagates throughout the distribution system. Correcting an error can require significant time and resources and usually involves many steps. Not only must reports to EPA be corrected, underlying records and reports reflecting RIN transactions must also be located and corrected to reflect discovery of an error. Because reporting related to RIN transactions under RFS1 was only on a quarterly basis, a RIN error could exist for several months before being discovered.

Incorrect RINs are invalid RINs. If parties in the distribution system cannot track down and correct errors in a timely manner, then all downstream parties that traded the invalid RIN are in violation. Because RINs are the basic unit of compliance for the RFS program, it is important that parties have confidence when generating and using them.

All parties in the RFS1 and the RFS2 regulated community are required to use RINs. Under RFS2, we foresee that regulated party community will substantially expand. Newer regulated parties of an already complex system necessitate EMTS. These parties include renewable fuel producers and importers, obligated parties, exporters, and other RIN owners; (typically marketers of renewable fuels and blenders). Under RFS1, all RINs were used to comply with a single standard. With RFS2, there are four standards. RINs must be generated to identify one of the fuel categories: cellulosic biofuel, cellulosic diesel, biomass-based diesel, advanced biofuel, and renewable fuels (e.g., corn ethanol). (For a more detailed discussion of RINs, see Section II.A of this preamble.) The different types of RINs will be managed in the EMTS.

2. Implementation of the EPA Moderated Transaction System

We proposed that EMTS would be an opt-in for the calendar year 2010 and mandatory for calendar year 2011. We received many comments strongly supporting EMTS implementation with the start of the RFS2 program to ensure confidence and simplicity in an increasingly complex program. We also received comments that EMTS implementation with RFS2 is necessary so industry would not have to create a new system to handle RFS2 RINs for 2010 and then move to EMTS for 2011 while still handling RFS1 RINs. Potentially, three RIN transaction systems would exist during transition from RFS1 to RFS2 if EMTS could not be implemented with the start of the RFS2 program. EPA agrees that this three system issue would be an undue burden to industry as it would require industry to create two systems within a 12 month period. EMTS development started with the introduction of the NPRM, and has been in beta testing since early November with a select group of different industry stakeholders. Industry feedback has been overwhelmingly strong for the implementation of EMTS with the start of RFS2. With this final rule, EPA decided that EMTS will start on the same date when RFS2 RINs are required to be generated. In addition, to ensure that parties will have enough time to incorporate RFS2 and EMTS requirements into private RIN tracking systems, the generation of RFS2 RINs will begin on July 1, 2010. Therefore, all RFS regulated parties are required to use EMTS starting July 1, 2010.

RIN transactions are required to be verified and certified on a quarterly basis. EMTS will provide summaries for parties to verify, report, and certify transactions to EPA through the fuels reporting system, DCFuels. Additional information may be required to be added to the EMTS provided summary. This additional certification step allows parties to verification that the information sent to EMTS is accurate. However, parties may choose to review their data by checking their EMTS account at anytime.

With EMTS, RIN transactions are required to be verified and certified on a quarterly basis. EMTS will provide summaries for parties to verify, report, and certify transactions to EPA through the fuels reporting system, DCFuels. Additional information may be required to be added to the EMTS provided report. This additional certification step allows parties to verify that the information sent to EMTS is accurate. However, parties may choose to review their data by checking their EMTS account at any time.

3. How EMTS Will Work

EMTS will be a closed, EPA-moderated system that provides a mechanism for screening RINs and a structured environment for conducting RIN transactions. "Screening" of RINs means that parties can have greater confidence that the RINs they handle are genuine. Although screening cannot remove all human error, we believe it can remove most of it.

We received comments opposing the 3 day time window for reporting transactions to the EMTS. One commenter requested 7 days from the event for sellers to report a transaction and 7 days after that for the buyer to accept the transaction. In order for this to be a "real time" system, we must require that the information comes in a timely manner. One commenter requested 10 days from the event to send information to EMTS. EPA has concluded that five days, or a business week, is an appropriate amount of time for both parties to receive or provide necessary documentation in order to interact with EMTS accurately and timely. "Real time" will be defined as within five (5) business days of a reportable event (*e.g.,* generation and assignment of RINs, transfer of RINs).

Parties who use EMTS must first register with EPA in accordance with the RFS2 registration program described in Section II.C of this preamble. Parties will also have to create an account (i.e., register) via EPA's Central Data Exchange (CDX), as users will access EMTS via CDX. CDX is a secure and central electronic portal through which parties may submit compliance reports. Parties must establish an account with EMTS by July 1, 2010 or 60 days prior to engaging in any transaction involving RINs, whichever is later. Once registration occurs, individual accounts will be established within EMTS and the system will enable a party to submit transactions based on their registration information.

In EMTS, the screening and assignment of RINs will be made at the logical point, i.e., the point when RINs

are generated through production or importation of renewable fuel. A renewable producer will electronically submit, in "real time," a volume of renewable fuel produced or imported, as well as a number of the RINs generated and assigned. EMTS will automatically screen each batch and either reject the information or allow RINs created in the RIN generator's account as one of the five types of RINs.

We received comments supporting the RFS1 approach that allows producers and importers to generate RINs at the renewable fuel point of sale. EPA realizes that this is an industry practice and this flexibility will still be allowed for RIN generators, but only if applied consistently.

After RINs have entered the system, parties may then trade them based on agreements outside of EMTS. One major advantage of EMTS, over the RFS1 system, is that the system will simplify trading by allowing RINs to be traded generically. Only some specifying information will be needed to trade RINs, such as RIN quantity, fuel type, RIN assignment, RIN year, RIN price or price per gallon. The unique identification of the RIN will exist within EMTS, but parties engaging in RIN transactions will no longer have to worry about incorrectly recording or using 38-digit RIN numbers. The actual items of transactional information covered under RFS2 are very similar to those reported under RFS1. The RIN price is one of the new pieces of transactional information required to be submitted under RFS2.

We received several adverse comments strongly opposing the collection of price information due to Confidential Business Information (CBI) concerns, other services being able to provide this information, marketplace delays and undue stress on the EMTS from disagreements in RIN price. We received one comment strongly supporting EPA collecting this information. EPA decided that the price information has great programmatic value because it will help us anticipate and appropriately react to market disruptions and other compliance challenges, assess and develop responses to potential waivers, and assist in setting future renewable fuel standards. In addition, EPA decided that highly summarized price information (e.g., the average price of RINs traded nationwide) may be valuable to regulated parties, as well, and may help them to anticipate and avoid market disruptions. Also, EPA will not require the matching of the exact RIN price to alleviate the burden of resubmission due to price mistakes. However, the price information must be accurate and rounded to the nearest cent (U.S. Dollar) at the time of sending the transactional information to EMTS.

We received one comment requesting publication of security precautions taken by EPA to protect EMTS from attacks. EPA cannot provide security information to the public because providing such information may create security vulnerabilities. However, EMTS will be compliant with the appropriate security requirements for all federal agency information technology systems.

Also as with RFS1, there is no "good faith" provision to RIN ownership. An underlying principle of RIN ownership is still one of "buyer beware" and RINs may be prohibited from use at any time if they are found to be invalid. Because of the "buyer beware" aspect, we will offer the option for a buyer to accept or reject RINs from specific RIN generators or from classes of RIN generators.

4. A Sample EMTS Transaction

This sample illustrates how two parties may trade RINs in EMTS:

(1) Seller logs into EMTS and posts a sale of 10,000 RINs to Buyer at X price. For this example, assume the RINs were generated in 2010 and were assigned to 10,000 gallons of "Renewable fuel (D=6)". Seller's RIN account for "Renewable fuel (D=6)" is put into a "pending" status of 10,000 with the posting of the sale to Buyer. Buyer receives automatic notification of the pending transaction.

(2) Buyer logs into EMTS. Buyer sees the sale transaction pending. Assuming it is correct, Buyer accepts it. Upon acceptance, Buyer's RIN account for "Renewable fuel (D=6)" RINs is automatically increased by 10,000 2010 assigned RINs sold at X price.

(3) After Seller has posted the sale and Buyer has accepted it, EMTS automatically notifies both Buyer and Seller that the transaction has been fully completed.

Under EMTS, the seller will always have to initiate any transaction. The specific amount of RINs are put into a pending status when the seller posts the sale. The buyer must confirm the sale in order to have the RINs transferred to the buyer's account. Transactions will always be limited to available RINs. Notification will automatically be sent to both the buyer and the seller upon completion of the transaction. EPA considers any sale or transfer as complete upon acknowledgement by the buyer. We will also allow buyers to submit their acknowledgement prior to a seller initiating the transaction. However, these buy transactions will not initiate any RINs being put into a pending status from a seller's account. Instead, the buy transactions will be queued and checked periodically to see if a "sell" transaction was posted by the seller. If a buy is posted without a matching sell transaction, then the seller will be notified that a buy transaction is pending. Both buy and sell transactions must be matched within a set number of days from the submission date or they will expire. Transactions will expire 7 days after the submission of the file. Since both parties are required to submit information within 5 days, we allow the full 5 days to expire plus 2 days in the case of late submissions.

In summary, the advantage to implementing EMTS is that parties may engage in RIN transactions with a high degree of confidence, errors will be virtually eliminated, and everyone engaging in RIN transactions will have a simplified environment in which to work, which should minimize the level of resources needed for implementation.

B. Upward Delegation of RIN-Separating Responsibilities

Since the start of the RFS program on September 1, 2007, there have been a number of instances in which a party who receives RINs with a volume of renewable fuel is required to either separate or retire those RINs, but views the recordkeeping and reporting requirements under the RFS program as an unnecessary burden. Such circumstances typically might involve a renewable fuel blender, a party that uses renewable fuel in its neat form, or a party that uses renewable fuel in a non-highway application and is therefore required to retire the RINs (under RFS1) associated with the volume. In some of these cases, the affected party may purchase and/or use only small volumes of renewable fuel and, absent the RFS program, would be subject to few (if any other) EPA regulations governing fuels.

This situation will become more prevalent with the RFS2 rule, as EISA added diesel fuel to the RFS program. With the RFS1 rule, small blenders (generally farmers and other parties that use nonroad diesel fuel) blending small amounts of biodiesel were not covered under the rule as EPAct mandated renewable fuel blending for highway gasoline only. EISA mandates certain amounts of renewable fuels to be blended into all transportation fuels—which includes highway and nonroad diesel fuel. Thus, parties that were not regulated under the RFS1 rule who only blend a small amount of renewable fuel (and, as mentioned above, are generally not subject to EPA fuels regulations) will now be regulated by the RFS program.

Consequently, we believe it is appropriate, and thus we are finalizing as proposed, to permit blenders who only blend a small amount of renewable fuel to allow the party directly upstream to separate RINs on their behalf. Such a provision is consistent with the fact that the RFS program already allows marketers of renewable fuels to assign more RINs to some of their sold product and no RINs to the rest of their sold product. We believe that this provision will eliminate undue burden on small parties who would otherwise not be regulated by this program. This provision is solely for the case of blenders who blend and trade less than 125,000 total gallons of renewable fuel per year (i.e., a company that blends 100,000 gallons and trades another 100,000 gallons would not be able to use this provision) and is available to any blender who must separate RINs from a volume of renewable fuel under § 80.1429(b)(2).

We requested comment in the NPRM on this concept, the 125,000 gallon threshold, and appropriate documentation to authorize this upward delegation. In general, those that commented on this provision support the idea of upward delegation for small blenders, though one commenter stated that EPA should not allow small entities to delegate their RIN-related responsibilities upward. Those commenters that support the upward delegation provision stated that it should be limited to small blenders only and should only be for delegating to the party directly upstream. A few commenters stated that they believe the 125,000 gallon threshold is appropriate; while others commented that it should be higher. We believe that the 125,000 gallon limit strikes the correct balance between providing relief to small blenders, while still ensuring that non-obligated parties cannot unduly influence the RIN market.

We did not receive any comments on appropriate documentation, however a couple commenters suggested that we retain the proposed annual authorization between the blender and the party directly upstream, as well as allowing a small blender to enter into arrangements with multiple suppliers on a transaction-by-transaction basis. *Please see* Chapter 5 of the Summary and Analysis of Comments Document for more discussion on the comments received and our responses to those comments.

We are also finalizing, as stated in the preamble to the proposed rule, that for upstream delegation, both parties must sign a quarterly written statement (which must be included with the reporting party's reports) authorizing the upward delegation. Copies of these statements must be retained as records by both parties. The supplier would then be allowed to retain ownership of RINs assigned to a volume of renewable fuel when that volume is transferred, under the condition that the RINs be separated or retired concurrently with the transfer of the volume. This statement would apply to all volumes of renewable fuel transferred between the two parties. Thus, the two parties would enter into a contract stating that the supplier has RIN-separation responsibilities for all transferred volumes between the two parties, and no additional permissions from the small blender would be needed for any volumes transferred. A blender may enter into such an agreement with as many parties as they wish.

C. Small Producer Exemption

Under the RFS1 rule, parties who produce or import less than 10,000 gallons of renewable fuel in a year are not required to generate RINs for that volume, and are not required to register with the EPA if they do not take ownership of RINs generated by other parties. These producers and importers are also exempt from registration, reporting, recordkeeping, and attest engagement requirements. In the preamble to the proposed rule, we requested comment on whether or not this 10,000 gallon threshold was appropriate. One commenter suggested that we retain the 10,000 gallon threshold as-is. Another commenter supported the concept of less burdensome requirements for small producers, but suggested that these entities should, at a minimum, be required to generate RINs for all qualifying renewables. We are maintaining this exemption under the RFS2 rule for parties who produce or import less than 10,000 gallons of renewable fuel per year.

In addition to the permanent exemption for those producers and importers who produce or import less than 10,000 gallons of renewable fuel per year, we are also finalizing a temporary exemption for renewable fuel producers who produce less than 125,000 gallons of renewable fuel each year from new production facilities. These producers are not required to generate and assign RINs to batches of renewable fuel for a period of up to three years, beginning with the calendar year in which the production facility produces its first gallon of renewable fuel. Such producers are also exempt from registration, reporting, recordkeeping, and attest engagement requirements as long as they do not own RINs or voluntarily generate and assign RINs. This provision is intended to allow pilot and demonstration plants of new renewable fuel technologies to focus on developing the technology and obtaining financing during these early stages of their development without having to comply with the RFS2 regulations.

D. 20% Rollover Cap

EISA does not change the language in CAA section 211(o)(5) stating that renewable fuel credits must be valid for showing compliance for 12 months as of the date of generation. As discussed in the RFS1 final rulemaking, we interpreted the statute such that credits would represent renewable fuel volumes in excess of what an obligated party needs to meet their annual compliance obligation. Given that the renewable fuel standard is an annual standard, obligated parties determine compliance shortly after the end of the year, and credits would be identified at that time. In the context of our RIN-based program, we have accomplished the statute's objective by allowing RINs to be used to show compliance for the year in which the renewable fuel was produced and its associated RIN first generated, or for the following year. RINs not used for compliance purposes in the year in which they were generated will by definition be in excess of the RINs needed by obligated parties in that year, making excess RINs equivalent to the credits referred to in section 211(o)(5). Excess RINs are valid for compliance purposes in the year following the one in which they initially came into existence. RINs not used within their valid life will thereafter cease to be valid for compliance purposes.

In the RFS1 final rulemaking, we also discussed the potential "rollover" of excess RINs over multiple years. This can occur in situations wherein the total number of RINs generated each year for a number of years in a row exceeds the number of RINs required under the RFS program for those years. The excess RINs generated in one year could be used to show compliance in the next year, leading to the generation of new excess RINs in the next year, causing the total number of excess RINs in the market to accumulate over multiple years despite the limit on RIN life. When renewable fuel volumes are being produced that exceed the RFS2 standards, the rollover issue could undermine the ability of a limit on credit life to guarantee an ongoing market for renewable fuels.

To implement EISA's restriction on the life of credits and address the rollover issue, the RFS1 final rulemaking implemented a 20% cap on the amount of an obligated party's RVO that can be met using previous-year RINs. Thus each obligated party is required to use current-year RINs to meet at least 80% of its RVO, with a maximum of 20% being derived from previous-year RINs. Any previous-year RINs that an obligated party may have that are in excess of the 20% cap can be traded to other obligated parties that need them. If the previous-year RINs in excess of the 20% cap are not used by any obligated party for compliance, they will thereafter cease to be valid for compliance purposes.

As described in the NPRM, EISA does not modify the statutory provisions regarding credit life, and the volume changes by EISA also do not change at least the possibility of large rollovers of RINs for individual obligated parties. As a result we proposed to maintain the regulatory requirement for a 20% rollover cap under the new RFS2 program, and to apply this cap separately to all four RVOs under RFS2. However, we took comment on changing the level of the cap to some alternative value lower or higher than 20%.

A lower cap could provide a greater incentive for parties with excess RINs to sell them rather than hold onto them, increasing the availability of RINs for parties that need them for compliance purposes. But a lower cap would also reduce flexibility for obligated parties attempting to minimize the costs of compliance with increasing annual volume requirements, particularly if there are concerns that the RIN market may be tighter in the future than it is currently.

Conversely, the increasing annual volume requirements in EISA make it less likely that renewable fuel producers will overcomply, and as a result it is less likely that there will be an excess of RINs in the market. Under these circumstances, there is little opportunity for RINs to build up in the market, and the rollover cap would have less of an impact on the market as a whole. Thus a higher cap might be warranted. However, while a higher cap would create greater flexibility for some obligated parties, it could also create disruptions in the RIN market as parties with excess RINs would have a greater opportunity to hold onto them rather than sell them. Parties without direct access to RINs through the purchase and blending of renewable fuels would be placed at a competitive disadvantage in comparison to parties with excess RINs. In the extreme, removal of the cap entirely would allow obligated parties to roll over up to one year's worth of their obligations indefinitely.

In general, commenters on the NPRM reiterated the positions that they raised during development of the RFS1 program. While one renewable fuel producer requested that the rollover cap be left at 20%, most producers requested that the rollover cap be reduced to 0%, such that compliance with the standards applicable in a given year could only be demonstrated using RINs generated in that year. In contrast, refiners requested that the rollover cap be either eliminated, such that any number of previous year RINs could be used for current year compliance, or at least raised to 40 or 50 percent. Small refiners requested that the cap be raised for small refiners only to accommodate the competitive disadvantage with respect to the RIN market that they believe they experience in comparison to larger refiners.

Based on the comments received, we believe that the 20% level continues to provide the appropriate balance between, on the one hand, allowing legitimate RIN carryovers and protecting against potential supply shortfalls that could limit the availability of RINs, and on the other hand ensuring an annual demand for renewable fuels as envisioned by EISA. Therefore, we are continuing the 20% rollover cap for obligated parties for the RFS program.

E. Small Refinery and Small Refiner Flexibilities

This section discusses flexibilities for small refineries and small refiners for the RFS2 rule. As explained in the discussion of our compliance with the Regulatory Flexibility Act below in Section XI.C and in the Final Regulatory Flexibility Analysis in Chapter 7 of the RIA, we considered the impacts of the RFS2 regulations on small businesses (small refiners). Most of our analysis of small business impacts was performed as a part of the work of the Small Business Advocacy Review Panel (SBAR Panel, or "the Panel") convened by EPA for this rule, pursuant to the Regulatory Flexibility Act as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA). The Final Report of the Panel is available in the rulemaking docket. For the SBREFA process, we conducted outreach, fact-finding, and analysis of the potential impacts of our regulations on small business refiners.

1. Background—RFS1

a. Small Refinery Exemption

CAA section 211(o)(9), enacted as part of EPAct, provides a temporary exemption to small refineries (those refineries with a crude throughput of no more than 75,000 barrels of crude per day, as defined in section 211(o)(1)(K)) through December 31, 2010.[35] Accordingly, the RFS1 program regulations exempt gasoline produced by small refineries from the renewable fuels standard (unless the exemption was waived), *see* 40 CFR 80.1141. EISA did not alter the small refinery exemption in any way.

b. Small Refiner Exemption

As mentioned above, EPAct granted a temporary exemption from the RFS program to small refineries through December 31, 2010. In the RFS1 final rule, we exercised our discretion under section 211(o)(3)(B) and extended this temporary exemption to the few remaining small refiners that met the Small Business Administration's (SBA) definition of a small business (1,500 employees or less company-wide) but did not meet the EPAct small refinery definition as noted above.

2. Statutory Options for Extending Relief

There are two provisions in section 211(o)(9) that allow for an extension of the temporary exemption for small refineries beyond December 31, 2010.

One provision involves a study by the Department of Energy (DOE) concerning whether compliance with the renewable fuel requirements would impose disproportionate economic hardship on small refineries, and would grant an automatic extension of at least two years for small refineries that DOE determines would be subject to such disproportionate hardship (per section 211(o)(9)(A)(ii)). If the DOE study determines that such hardship exists, then section 211(o)(9)(A)(ii) (which was retained in EISA) provides that EPA shall extend the exemption for a period of at least two years.

The second provision, at section 211(o)(9)(B), authorizes EPA to grant an extension for a small refinery based upon disproportionate economic hardship, on a case-by-case basis. A small refinery may, at any time, petition EPA for an extension of the small refinery exemption on the basis of disproportionate economic hardship. EPA is to consult with DOE and consider the findings of the DOE small

[35] Small refineries are also allowed to waive this exemption.

refinery study in evaluating such petitions. These petitions may be filed at any time, and EPA has discretion to determine the length of any exemption that may be granted in response.

3. The DOE Study/DOE Study Results

As discussed above, EPAct required that DOE perform a study by December 31, 2008 on the impact of the renewable fuel requirements on small refineries (section 211(o)(9)(A)(ii)(I)), and whether or not the requirements would impose a disproportionate economic hardship on these refineries. In the small refinery study, "EPACT 2005 Section 1501 Small Refineries Exemption Study," DOE's finding was that there is no reason to believe that any small refinery would be disproportionately harmed by inclusion in the proposed RFS2 program. This finding was based on the fact that there appeared to be no shortage of RINs available under RFS1, and EISA has provided flexibility through waiver authority (per section 211(o)(7)). Further, in the case of the cellulosic biofuel standard, cellulosic biofuel allowances can be provided from EPA at prices established in EISA (see regulation section 80.1456). DOE thus determined that small refineries would not be subject to disproportionate economic hardship under the proposed RFS2 program, and that the exemption should not, on the basis of the study, be extended for small refineries (including those small refiners who own refineries meeting the small refinery definition) beyond December 31, 2010. DOE noted in the study that, if circumstances were to change and/or the RIN market were to become non-competitive or illiquid, individual small refineries have the ability to petition EPA for an extension of their small refinery exemption (pursuant to Section 211(o)(9)(B)).

4. Ability To Grant Relief Beyond 211(o)(9)

The SBREFA panel made a number of recommendations for regulatory relief and additional flexibility for small refineries and small refiners. These are described in the Final Panel Report (located in the rulemaking docket), and summarized below. During the development of this final rule, we again evaluated the various options recommended by the Panel and also comments on the proposed rule. We also consulted the small refinery study prepared by DOE.

As described in the Final Panel Report, EPA early-on identified limitations on its authority to issue additional flexibility and exemptions to small refineries. In section 211(o)(9) Congress specifically addressed the issue of an extension of time for compliance for small refineries, temporarily exempting them from renewable fuel obligations through December 31, 2010. As discussed above, the statute also includes two specific provisions describing the basis and manner in which further extensions of this exemption can be provided. In the RFS1 rulemaking, EPA considered whether it should provide additional relief to the limited number of small refiners who were not covered by the small refinery provision, by providing them a temporary exemption consistent with that provided by Congress for small refineries. EPA exercised its discretion under section 211(o)(3) and provided such relief. Thus, in RFS1, EPA did not modify the relief provided by Congress for small refineries, but did exercise its discretion to provide the same relief specified by statute to a few additional parties.

In RFS2 we are faced with a different issue—the extent to which EPA should provide additional relief to small refineries beyond the relief specified by statute, and whether it should provide such further relief to small refiners as well. There is considerable overlap between entities that are small refineries and those that are small refiners. Providing additional relief just to small refiners would, therefore, also extend additional relief to at least a number of small refineries. Congress spoke directly to the relief that EPA may provide for small refineries, including those small refineries operated by small refiners, and limited that relief to a blanket exemption through December 31, 2010, with additional extensions if the criteria specified by Congress are met. EPA believes that an additional or different extension, relying on a more general provision in section 211(o)(3) would be inconsistent with Congressional intent. Further, we do not believe that the statute allows us the discretion to give relief to small refiners only—as this would result in a subset of small refineries (those that also qualify as small refiners) receiving relief that is greater than the relief already given to all small refineries under EISA.

EPA also notes that the criteria specified by statute for providing a further compliance extension to small refineries is a demonstration of "disproportionate economic hardship." The statute provides that such hardship can be identified through the DOE study, or in individual petitions submitted to the Agency. However, the DOE study has concluded that no disproportionate economic hardship exists, at least under current conditions and for the foreseeable future under RFS2. Therefore, absent further information that may be provided through the petition process, there does not currently appear to be a basis under the statute for granting further compliance extensions to small refineries. If DOE revises its study and comes to a different conclusion, EPA can revisit this issue.

5. Congress-Requested Revised DOE Study

In their written comments, as well as in discussions we had with them on the proposed rule, small refiners indicated that they did not believe that EPA should rely on the results of the DOE small refinery study to inform any decisions on small refiner provisions. Small refiners generally commented that they believe that the study was flawed and that the conclusions of the study were reached without adequate analysis of, or outreach with, small refineries (as the majority of the small refiners own refineries that meet the Congressional small refinery definition). One commenter stated that such a limited investigation into the impact on small refineries could not have resulted in any in-depth analysis on the economic impacts of the program on these entities. Another commenter stated that it believes that DOE should be directed to reopen and reassess the small refinery study be June 30, 2010, as suggested by the Senate Appropriations Committee.

We are aware that there have been expressions of concern from Congress regarding the DOE Study. Specifically, in Senate Report 111–45, the Senate Appropriations Committee "directed [DOE] to reopen and reassess the Small Refineries Exemption Study by June 30, 2010," noting a number of factors that the Committee intended that DOE consider in the revised study. The Final Conference Report 111–278 to the Energy & Water Development Appropriations Act (H.R. 3183), referenced the language in the Senate Report, noting that the conferees "support the study requested by the Senate on RFS and expect the Department to undertake the requested economic review." At the present time, however, the DOE study has not been revised. If DOE prepares a revised study and the revised study finds that there is a disproportionate economic impact, we will revisit the exemption extension at that point in accordance with section 211(o)(9)(A)(ii).

6. What We're Finalizing

a. Small Refinery and Small Refiner Temporary Exemptions

As mentioned above, the RFS1 program regulations exempt gasoline produced by small refineries from the renewable fuels standard through December 31, 2010 (at 40 CFR 80.1141), per EPAct. As EISA did not alter the small refinery exemption in any way, we are retaining this small refinery temporary exemption in the RFS2 program without change (except for the fact that all transportation fuel produced by small refineries will be exempt, as EISA also covers diesel and nonroad fuels).

Likewise, as we extended under RFS1 the small refinery temporary exemption to the few remaining small refiners that met the Small Business Administration's (SBA) definition of a small business (1,500 employees or less company-wide), we are also finalizing a continuation of the small refiner temporary exemption through December 31, 2010.

b. Case-by-Case Hardship for Small Refineries and Small Refiners

As discussed in Section III.E.2, EPAct also authorizes EPA to grant an extension for a small refinery based upon disproportionate economic hardship, on a case-by-case basis. We believe that these avenues of relief can and should be fully explored by small refiners who are covered by the small refinery provision. In addition, we believe that it is appropriate to allow petitions to EPA for an extension of the temporary exemption based on disproportionate economic hardship for those small refiners who are not covered by the small refinery provision (again, per our discretion under section 211(o)(3)(B)); this would ensure that all small refiners have the same relief available to them as small refineries do. Thus, we are finalizing a hardship provision for small refineries in the RFS2 program, that any small refinery may apply for a case-by-case hardship at any time on the basis of disproportionate economic hardship per CAA section 211(o)(9)(B). We are also finalizing a case-by-case hardship provision for those small refiners that do not operate small refineries using our discretion under CAA section 211(o)(3)(B). This provision will allow those small refiners that do not operate small refineries to apply for the same kind of hardship extension as a small refinery. In evaluating applications for this hardship provision EPA will take into consideration information gathered from annual reports and RIN system progress updates, as recommended by the SBAR Panel, as well as information provided by the petitioner and through consultation with DOE.

c. Program Review

During the SBREFA process, the small refiner Small Entity Representatives (SERs) also requested that EPA perform an annual program review, to begin one year before small refiners are required to comply with the program, to provide information on RIN system progress. As mentioned in the preamble to the proposed rule, we were concerned that such a review could lead to some redundancy with the notice of the applicable RFS standards that EPA will publish in the **Federal Register** annually, and this annual process will inevitably include an evaluation of the projected availability of renewable fuels. Nevertheless, some Panel members commented that they believe a program review could be beneficial to small entities in providing them some insight to the RFS program's progress and alleviate some uncertainty regarding the RIN system. As we will be publishing a **Federal Register** notice annually, the Panel recommended, and we proposed, that an update of RIN system progress (*e.g.,* RIN trading, publicly-available information on RIN availability, etc.) be included in this annual notice.

Based on comments received on the proposed rule, we believe that such information could be helpful to industry, especially to small businesses to help aid the proper functioning of the RIN market, especially in the first years of the program. However, during the development of the final rule, it became evident that there could be instances where we would want to report out RIN system information on a more frequent basis than just once a year. Thus we are finalizing that we will periodically report out elements of RIN system progress; but such information will be reported via other means (*e.g.,* the RFS Web site (*http://www.epa.gov/otaq/renewablefuels/index.htm*), EMTS homepage, etc.).

7. Other Flexibilities Considered for Small Refiners

During the SBREFA process, and in their comments on the proposed rule, small refiners informed us that they would need to rely heavily on RINs and/or make capital improvements to comply with the RFS2 requirements. These refiners raised concerns about the RIN program itself, uncertainty (with the required renewable fuel volumes, RIN availability, and costs), the desire for an annual RIN system review, and the difficulty in raising capital and competing for engineering resources to make capital improvements.

The Panel recommended that EPA consider the issues raised by the small refiner SERs and discussions had by the Panel itself, and that EPA should consider comments on flexibility alternatives that would help to mitigate negative impacts on small businesses to the extent allowable by the Clean Air Act. A summary of further recommendations of the Panel are discussed in Section XI.C of this preamble, and a full discussion of the regulatory alternatives discussed and recommended by the Panel can be found in the SBREFA Final Panel Report. Also, a complete discussion of comments received on the proposed rule regarding small refinery and small refiner flexibilities can be found in Chapter 5 of the Summary and Analysis of Comments document.

a. Extensions of the RFS1 Temporary Exemption for Small Refiners

As previously stated, the RFS1 program regulations provide small refiners who operate small refineries, as well as those small refiners who do not operate small refineries, with a temporary exemption from the standards through December 31, 2010. This provided an exemption for small refineries (and small refiners) for the first five years of the RFS program. Small refiner SERs suggested that an additional temporary exemption for the RFS2 program would be beneficial to them in meeting the RFS standards as increased by Congress in EISA. The Panel recommended that EPA propose a delay in the effective date of the standards until 2014 (for a total of eight years) for small entities, to the extent allowed by the statute.

During the development of both the Final Panel Report and the proposed rule, we evaluated various options for small refiners, including an additional temporary exemption for small refiners from the required RFS2 standards. As discussed above, we concluded that we do not have the statutory authority to provide such extensions through means other than those specified in the statute. Thus, further extensions will be as a result of any revised DOE study, or in response to a petition, pursuant to the authorities specified in section 211(o)(9).

We proposed to continue the temporary exemption finalized in RFS1—through December 31, 2010. Commenters that oppose an extension of the temporary exemption generally stated that an extension is not warranted, and some commenters expressed concerns about allowing

provisions for small refiners. One commenter also stated that it believes that the small refinery exemption should not be extended and that the small refiner exemption should be eliminated completely. Two commenters supported the continuation of the exemption through December 31, 2010 only, and one stated that it does not support an extension as it believes that all parties have been well aware of the passage of EISA and small refineries and small refiners should have been striving to achieve compliance by the end of 2010. Two commenters also expressed views that the exemption should not have been offered to small refiners in RFS1 as this was not provided by EPAct, and that an extension of the exemption should not be finalized for small refineries at all. The commenters further commented that an economic hardship provision was included in EPAct, and any exemption extension should be limited to such cases, and only to the specific small refinery (not small refiner) that has petitioned for such an extension.

Commenters supporting an extension of the exemption commented that they believe that the statutes (EPAct and EISA) do not prohibit EPA from providing relief to regulated small entities on which the rule will have a significant economic impact, and that such a delay could lessen the burden on these entities. One commenter stated that it believes EPA denied or ignored much of the relief recommended by the Panel in the proposal. Another commenter stated that it believes EPA's concerns regarding the legal authority are unsustainable considering EPA's past exercises of discretion under the RFS1 program, and with the discretion afforded to EPA under section 211(o) of the CAA. Some commenters requested a delay until 2014 for small refiners. One additional commenter expressed support for an extension of the small refinery exemption only, and that these small refineries should be granted a permanent exemption.

During the development of this final rule, we again evaluated the various options recommended by the Panel, the legality of offering an extension of the exemption to small refiners only, and also comments on the proposed rule. Specifically in the case of an extension of the exemption for small refiners, we also consulted the small refinery study prepared by DOE, as the statute directs us to use this as a basis for providing an additional two year exemption. As discussed above in Sections III.E.4 and 5, we do not believe that we can provide an extension of the exemption considering the outcome of the DOE small refinery study, which did not find that there was a disproportionate economic hardship. Further, we do not believe that the statute allows us the discretion to give relief to a subset of small refineries (those that also qualify as small refiners) that is greater than the relief already given to all small refineries under EPAct. However, it is important to recognize that the 211(o)(9) small refinery provision does allow for extensions beyond December 31, 2010, as discussed above in Section III.E.2. Thus, refiners may apply for individual hardship relief.

b. Phase-in

The small refiner SERs suggested that a phase-in of the obligations applicable to small refiners would be beneficial for compliance, such that small refiners would comply by gradually meeting the standards on an incremental basis over a period of time, after which point they would comply fully with the RFS2 standards. However we stated in the NPRM that we had serious concerns about our legal authority to provide such a phase-in. CAA section 211(o)(3)(B) states that the renewable fuel obligation shall "consist of a single applicable percentage that applies to all categories of persons specified" as obligated parties. A phase-in approach would essentially result in different applicable percentages being applied to different obligated parties. Further, such a phase-in approach would provide more relief to small refineries operated by small refiners than that provided under the statutory small refinery provisions.

Some commenters stated that they believe that EPA has the ability to consider a phase-in of the standards for small refiners. One commenter suggested that a temporary phase-in could help lessen the burden of regulation on small entities and promote compliance. Another commenter stated that it believes EPA's legal concerns regarding a phase-in are unsustainable considering EPA's past exercises of discretion under the RFS1 program and with the discretion afforded to EPA under section 211(o) of the CAA.

After considering the comments on this issue, EPA continues to believe that allowing a phase-in of regulatory requirements for small refineries and/or small refiners would be inconsistent with the statute, for the reasons mentioned above. Any individual entities that are experiencing hardship that could justify a phase-in of the standards have the ability to petition EPA for individualized relief. Therefore we are not including a phase-in of standards for small refiners in today's rule.

c. RIN-Related Flexibilities

The small refiner SERs requested that the RFS2 rule contain provisions for small refiners related to the RIN system, such as flexibilities in the RIN rollover cap percentage and allowing small refiners only to use RINs interchangeably. In the RFS1 rule, up to 20% of a previous year's RINs may be "rolled over" and used for compliance in the following year. In the preamble to the proposed rule, we discussed the concept of allowing for flexibilities in the rollover cap, such as a higher RIN rollover cap for small refiners for some period of time or for at least some of the four standards. As the rollover cap is the means through which we are implementing the limited credit lifetime provisions in section 211(o) of the CAA, and therefore cannot simply be eliminated, we requested comment on the concept of increasing the RIN rollover cap percentage for small refiners and an appropriate level of that percentage. In response to the Panel's recommendation, we also sought comment on allowing small refiners to use the four types of RINs interchangeably.

In their comments on the proposed rule, one small refiner commented that, in regards to small refiners' concerns about RIN pricing and availability, there is no mechanism in the rule to address the possibility that the RIN market will not be viable. The commenter further suggested that more "durable" RINs are needed for small refiners that can be carried over from year to year, to alleviate some of the potentially market volatility for renewable fuels. Another commenter suggested that RINs should be interchangeable for small refiners, or alternatively, some mechanism should be implemented to ensure that RIN prices are affordable for small refiners. Further, with regard to interchangeable RINs, one commenter stated that small refiners do not have the staff or systems to manage and account for four different categories of RINs and rural small refiners will suffer economic hardship and disadvantage because of the unavailability of biofuels. The commenter also requested an increase in the rollover cap to 50% for small refiners.

We are not finalizing additional RIN-related flexibilities for small refiners in today's action. As highlighted in the NPRM, we continue to believe that the concept of interchangeable RINs for small refiners only fails to require the four different standards mandated by Congress (e.g., conventional biofuel

could not be used instead of cellulosic biofuel or biomass-based diesel), and is not consistent with section 211(o) of the Clean Air Act. Essentially, it would circumvent the explicit direction of Congress in EISA to require that the four RFS2 standards be met separately. Further, given the findings from the DOE study that small refineries (and thus, most small refiners) do not currently face disproportionate economic hardship, and are not expected to do so as RFS2 is implemented, we do not believe that a basis exists to justify providing small refiners with a larger rollover cap than other regulated entities. Thus, small refiners will be held to the same RIN rollover cap as other obligated parties.

F. Retail Dispenser Labeling for Gasoline With Greater Than 10 Percent Ethanol

We proposed labeling requirements for fuel dispensers that handle greater than 10 volume percent ethanol blends which included the following text: For use only in flexible-fuel vehicles, May damage non-flexible-fuel vehicles, Federal law prohibits use in non-flexible-fuel vehicles. This proposal was primarily meant to help address concerns about the potential misfueling of non-flex-fuel vehicles with E85, in light of the anticipated increase in E85 sales volumes in response to the RFS2 program. All ethanol blends above 10 volume percent were included due to the increasing industry focus on ethanol blender pumps that are designed to dispense a variety of ethanol blends (*e.g.,* E30, and E40) for use in flex-fuel vehicles.

Commenters stated that EPA should undertake additional analysis of the potential impacts from misfueling and what preventative measures might be appropriate before finalizing labeling requirements for >E10 blends. They also stated that EPA should coordinate any such labeling provisions with those already in place by the Federal Trade Commission. EPA is also currently evaluating a petition to allow the use of up to 15 volume percent ethanol in non-flex fuel vehicles. One potential result of this evaluation might be for EPA to grant a partial waiver that is applicable only for a subset of the current vehicle population. Under such an approach, a label for E15 fuel dispensers would be needed that identifies what vehicles are approved to use E15.

Based on the public comments and the fact that EPA has not completed its evaluation of the E15 waiver petition, we believe that it is appropriate to defer finalizing labeling requirements for >E10 blends at this time. This will afford us the opportunity to complete our analysis of what measures might be appropriate to prevent misfueling with >E10 blends before this may become a concern in the context of the RFS2 program.

G. Biodiesel Temperature Standardization

The volume of a batch of renewable fuel can change under extreme changes in temperature. The volume of a batch of renewable fuel can experience expansion as the temperature increases, or can experience contraction as temperature decreases. The Agency requires temperature standardization of renewable fuels at 60° Fahrenheit (°F) so renewable fuel volumes are accounted for on a uniform and consistent basis over the entire fuels industry. In the May 1, 2007 Renewable Fuels Standard (RFS) final rule the Agency required biodiesel temperature standardization to be completed as follows:

$$V_{s,b} = V_{a,b} \times (-0.0008008 \times T + 1.0480)$$

Where

$V_{s,b}$ = Standard Volume of biodiesel at 60 degrees F, in gallons;

$V_{a,b}$ = Actual volume of biodiesel, in gallons;

T = Actual temperature of batch, in degrees F.

This equation was based on data from a published research paper by *Tate et al.*[36] Members of the petroleum industry have indicated that the current biodiesel temperature standardization equation in the regulations provides different results than that commonly used by both the petroleum and biodiesel industry for commercial trading of biodiesel. These commercial values are either based on American Petroleum Institute (API) tables for petroleum products or on empirical values from industry measurements at common temperatures and pressures observed in bulk fuel facilities. The difference between RIN calculated volumes and commercial sales volumes has created confusion within the record keeping system of both the petroleum and biodiesel industry.

In the RFS2 proposed rule, the Agency proposed the temperature standardization of biodiesel remain unchanged from the RFS1 requirements.[37] The Agency received comments from Archer Daniels Midland Company (ADM), World Energy Alternatives, Marathon Petroleum Company (Marathon) and the National Biodiesel Board (NBB) to revise the biodiesel temperature standardization equation.

Both ADM and NBB agreed on the necessity for biodiesel temperature standardization at 60 °F. ADM and NBB commented on several empirical calculations which have been developed specific to biodiesel temperature standardization since the 2007 RFS1 final rule. These include a 2004 data set developed by the Minnesota Department of Commerce and the Renewable Energy Group and updated in 2008; information embedded in the European Biodiesel Specification EN 14214; and information from the Alberta Research Council. The table below provides values from NBB for 1000 gallons of biodiesel standardized to a temperature at 60 °F for these empirical calculations, along with the current EPA equation, and the American Petroleum Institute (API) Refined Products Table 6.

TABLE III.G–1—NBB COMPARISON OF BIODIESEL TEMPERATURE STANDARDIZATION CALCULATIONS TO 60 °F FOR 1000 GALLONS OF BIODIESEL AT 90 °F

	Gallons
2007 EPA Biodiesel Formula	975.28
2008 Minnesota (Hedman) data	986.270
API Refined Products Table 6 (biodiesel density @ 7.359)	986.625
Alberta Research Council	986.238
EN 14214 data	986.401
2004 Minnesota Renewable Energy Group data	986.830

As illustrated by the results from the above table, the values for the various biodiesel temperature standardization empirical calculations are within 1 gallon of agreement of each other for a 1000 gallon biodiesel batch, except for the current biodiesel temperature standardization equation in the regulations.

To ensure consistency in RIN generation, ADM commented EPA should adopt only one biodiesel temperature standardization calculation. ADM commented that all biodiesel temperature standardization calculations developed, including the API Refined Products Table 6, are in very close agreement with each other and the differences between them all are insignificant. They further commented the API Refined Products Table 6 has provided a uniform measurement of volume for years for the entire liquid fuels industry. Thus, ADM believes the API Refined Products Table 6 should be adopted for biodiesel to be consistent with the calculation of sales volumes.

[36] Equation was derived from R.E. Tate et al. "The Densities of Three Biodiesel Fuels at Temperatures up to 300 °C.", Department of Biological Engineering, Dalhousie University, April 2005. "Fuel 85 (2006) 1004–1009, Table 1 for soy methyl ester."

[37] 74 FR 24943, May 26, 2009.

Finally ADM comments adoption of the API Refined Products Table 6 would allow for easier verification within the marketplace, eliminate the need for calculating one volume for sales and trades and another for RINs, and prevents the entire distribution network from facing the financial burden of reprogramming existing meters that already are based on the API Refined Products Table 6.

NBB commented that earlier surveys from its members indicate a fifty-fifty split between members using the API Refined Products Table 6 or some variation of the current EPA biodiesel formula for biodiesel temperature standardization. Some NBB members indicated that the API Refined Products Table 6 was more commonly used by the petroleum industry and embedded into the meters, pumps and accounting systems of the petroleum industry. Companies already using the API Refined Products Table 6 would have a reduction in required paperwork with RIN generation and tracking because already existing commercial documents could serve that purpose and they thus could eliminate or reduce their current dual tracking system. Other NBB members have already embedded the current EPA biodiesel equation within their accounting and sales systems and would like to continue using that type of biodiesel temperature standardization approach rather than the API Refined Products Table 6. The NBB recommended EPA revise its current equation in the regulations to the 2008 Hedman biodiesel temperature standardization equation. Thus, NBB commented EPA should provide flexibility to their members by allowing the use of either the API Refined Products Table 6 or the use of a biodiesel temperature standardization equation.

Marathon commented the regulations allow for the standardization of volume for other renewable fuels to be determined by an appropriate formula commonly accepted by the industry which may be reviewed by the EPA for appropriateness. They recommended that EPA extend this courtesy to biodiesel.

The Agency acknowledges that the current biodiesel temperature standardization equation is likely not correct for biodiesel temperature standardization at ambient temperatures observed in the fuel distribution system. Based on the comments received, the Agency is amending the regulations to allow for two ways for biodiesel temperature standardization: (1) The American Petroleum Institute Refined Products Table 6B, as referenced in ASTM D1250–08, entitled, "Standard Guide for Use of the Petroleum Measurement Tables", and (2) a biodiesel temperature standardization equation that utilizes the 2008 data generated by the Minnesota Department of Commerce and the Renewable Energy Group. These two methods for biodiesel temperature standardization are within one gallon of agreement of each other for a 1000 gallon biodiesel batch and thus in very close agreement. Both ADM and NBB acknowledged that the differences between these two methods are insignificant and the resulting corrected volumes from these two methods of calculation are within accuracy tolerances of any metered measurement. Thus, the Agency believes the allowance of both of these methods for biodiesel temperature standardization will increase flexibility while still providing for a consistent generation and accounting of biodiesel RINs over the entire fuel delivery system.

IV. Renewable Fuel Production and Use

An assessment of the impacts of increased volumes of renewable fuel must begin with an analysis of the kind of renewable fuels that could be used, the types and locations of their feedstocks, the fuel volumes that could be produced by a given feedstock, and any challenges associated with their use. This section provides an assessment of the potential feedstocks and renewable fuels that could be used to meet the Energy Independence and Security Act (EISA) and the rationale behind our projections of various fuel types to represent the control cases for analysis purposes. As new technologies, feedstocks, and fuels continue to develop on a daily basis, markets may appear differently from our projections. Although actual volumes and feedstocks may differ, we believe the projections made for our control cases are within the range of possible predictions for which the standards are met and allow for an assessment of the potential impacts of the increases in renewable fuel volumes that meet the requirements of EISA.

A. Overview of Renewable Fuel Volumes

EISA mandates the use of increasing volumes of renewable fuel. To assess the impacts of this increase in renewable fuel volume from business-as-usual (what is likely to have occurred without EISA), we have established reference and control cases from which subsequent analyses are based. The reference cases are projections of renewable fuel volumes without the enactment of EISA and are described in Section IV.A.1. The control cases are projections of the volumes and types of renewable fuel that might be used in the future to comply with the EISA volume mandates. For the NPRM we had focused on one primary control case (*see* Section IV.A.2) whereas for the final rule we have expanded the analysis to include two additional sensitivity cases (*see* Section IV.A.3). Based on the public comments received as well as new information, we have updated the primary control case volumes from the NPRM to reflect what we believe could be a more likely set of volumes to analyze. We assume in each of the cases the same ethanol-equivalence basis as was used in the RFS1 rulemaking to meet the standard. Volumes are listed in tables for this section in both straight-gallons and ethanol-equivalent gallons (i.e., times 1.5 for biodiesel or 1.7 for cellulosic diesel and renewable diesel). The volumes included in this section are for 2022. For intermediate years, refer to Section 1.2 of the RIA.

1. Reference Cases

Our primary reference case renewable fuel volumes are based on the Energy Information Administration's (EIA) Annual Energy Outlook (AEO) 2007 reference case projections.[38] While AEO 2007 is not as up-to-date as AEO 2008 or AEO 2009, we chose to use AEO 2007 because later versions of AEO already include the impact of increased renewable fuel volumes under EISA as well as fuel economy improvements under CAFE as required in EISA, whereas AEO 2007 did not.

For the final rule we have also assessed a number of the impacts relative to a reference case assuming the mandated renewable fuel volumes under RFS1 from the Energy Policy Act of 2005 (EPAct). This allows for a more complete assessment of the impacts of the EISA volume mandates, especially when combined with the impacts assessment conducted for the RFS1 rulemaking (though many factors have changed since then). Table IV.A.1–1 summarizes the 2022 renewable fuel volumes for the AEO 2007 and the RFS1 reference cases (listed in both straight volumes and ethanol-equivalent volumes).

[38] AEO 2007 was only used to derive renewable fuel volume projections for the primary reference case. AEO 2009 was used for future crude oil cost estimates and for estimating total transportation fuel energy use.

TABLE IV.A.1–1—REFERENCE CASE RENEWABLE FUEL VOLUMES IN 2022

[Billion gallons]

Source/volume type	Advanced biofuel			Non-advanced biofuel	Total renewable fuel
	Cellulosic biofuel	Biomass-based diesel [a]	Other advanced biofuel		
	Cellulosic ethanol [c]	FAME biodiesel [b]	Imported ethanol	Corn ethanol	
AEO 2007 Straight Volume	0.25	0.38	0.64	12.29	13.56
AEO 2007 Ethanol-Equivalent	0.25	0.58	0.64	12.29	13.76
RFS 1 Straight Volume	0.00	0.30	0.00	7.05	7.35
RFS 1 Ethanol-Equivalent	0.00	0.45	0.00	7.05	7.50

[a] Biomass-Based Diesel could include FAME biodiesel, cellulosic diesel, and non-co-processed renewable diesel.
[b] Only fatty acid methyl ester (FAME) biodiesel volumes were considered.
[c] Under the RFS1 reference case, we assumed the 250-million gallon cellulosic standard set by EPAct would be met primarily by corn ethanol plants utilizing 90% biomass for energy, thus actual production of cellulosic biofuel is zero. AEO 2007 reference case assumes actual production of cellulosic biofuel and therefore assumed to be 0.25 billion gallons.

2. Primary Control Case

Our assessment of the renewable fuel volumes required to meet EISA necessitates establishing a primary set of fuel types and volumes on which to base our assessment of the impacts of the new standards. EISA contains four broad categories: cellulosic biofuel, biomass-based diesel, total advanced biofuel, and total renewable fuel. As these categories could be met with a wide variety of fuel choices, in order to assess the impacts of increased volumes of renewable fuel, we projected a set of reasonable renewable fuel volumes based on our projection of fuels that could come to market.

Although actual volumes and feedstocks will be different, we believe the projections made for our control cases are within the range of possible predictions for which the standards are met and allow for an assessment of the potential impacts of increased volumes of renewable fuel. Table IV.A.2–1 summarizes the fuel types used for the primary control case and their corresponding volumes for the year 2022.

TABLE IV.A.2–1—PRIMARY CONTROL CASE PROJECTED RENEWABLE FUEL VOLUMES IN 2022

[Billion gallons]

Volume type	Advanced biofuel						Non-advanced biofuel	Total renewable fuel
	Cellulosic biofuel		Biomass-based diesel [a]		Other advanced biofuel			
	Cellulosic ethanol	Cellulosic diesel [b]	FAME [c] biodiesel	NCRD [d]	Other biodiesel [e]	Imported ethanol	Corn ethanol	
Straight Volume	4.92	6.52	0.85	0.15	0.82	2.24	15.00	30.50
Ethanol-Equivalent	4.92	11.08	1.28	0.26	1.23	2.24	15.00	36.00

[a] Biomass-Based Diesel could include FAME biodiesel, cellulosic diesel, and non-co-processed renewable diesel.
[b] Cellulosic Diesel includes at least 1.96 billion gallons (3.33 billion ethanol-equivalent gallons) from Fischer-Tropsch Biomass-to-Liquids (BTL) processes based on EIA's forecast and an additional 4.56 billion gallons (7.75 billion ethanol-equivalent gallons) from this or other types of cellulosic diesel processes.
[c] Fatty acid methyl ester (FAME) biodiesel.
[d] Non-Co-processed Renewable Diesel (NCRD).
[e] Other Biodiesel is biodiesel that could be produced in addition to the amount needed to meet the biomass-based diesel standard.

The following subsections detail our rationale for projecting the amount and type of fuels needed to meet EISA as shown in Table IV.A.2–1. For cellulosic biofuel we have assumed that by 2022 on a straight-volume basis about half would come from cellulosic ethanol and the other half from cellulosic diesel. On an ethanol-equivalent volume basis, cellulosic diesel would make up almost 70% of the 16 billion gallons cellulosic biofuel standard. Biomass-based diesel is assumed to be comprised of a majority of fatty-acid methyl ester (FAME) biodiesel and a smaller portion of non-co-processed renewable diesel. The portion of the advanced biofuel category not met by cellulosic biofuel and biomass-based diesel is assumed to come mainly from imported sugarcane ethanol with a smaller amount from additional biodiesel sources. The total renewable fuel volume not required to be comprised of advanced biofuels is assumed to be met with corn ethanol with small amounts of other grain starches and waste sugars.

The main difference between the volumes used for the NPRM and the volumes used for the FRM is the inclusion of cellulosic diesel for the FRM. The NPRM made the simplifying assumption that the cellulosic biofuel standard would be met entirely with cellulosic ethanol. However, due to growing interest and recent developments in hydrocarbon-based or so-called "drop-in" renewable fuels as well as butanol, and marketplace challenges for consuming high volumes of ethanol, we have included projections of more non-ethanol renewables in our primary control case for the final rule.[39] In the future, this could include various forms of "green hydrocarbons" (i.e., cellulosic gasoline, diesel and jet) and higher alcohols, but

[39] Comments received from Advanced Biofuels Association, Testimony on June 9, 2009 suggesting a number of advanced biofuel technologies will be able to produce renewable diesel, jet fuels, gasoline, and gasoline component fuels (e.g. butanol, iso-octane). Similar comments were received from the New York State Department of Environmental Conservation (Docket EPA–HQ–OAR–2005–0161–2143), OPEI and AllSAFE (Docket EPA–HQ–OAR–2005–0161–2241), and the Low Carbon Synthetic Fuels Association (Docket EPA–HQ–OAR–2005–0161–2310).

for analysis purposes, we have modeled it as cellulosic diesel fuel. We describe these fuels in greater detail in Section IV.B–D. We have also included some algae-derived biofuels in our FRM analyses given the large interest and potential for such fuels. We have continued to assume zero volume for renewable fuels or blendstocks such as biogas, jatropha, palm, imported cellulosic biofuel, and other alcohols or ethers in our control cases. Although we have not included these renewable fuels and blendstocks in our impact analyses, it is important to note that they can still be counted under our program if they meet the lifecycle thresholds and definitions for renewable biomass, and recent information suggests that some of them may be likely.

a. Cellulosic Biofuel

As discussed in our NPRM, whether cellulosic biofuel is ethanol will depend on a number of factors, including production costs, the form of tax subsidies, credit programs, and factors influencing the blending of biofuel into the fuel pool. It will also depend on the relative demand for gasoline and diesel fuel. As a result of our analyses on ethanol consumption (*see* Section IV.D) and continual tracking of the industry's interest in hydrocarbon-based renewables (*see* Section IV.B), we have decided to analyze a cellulosic biofuel standard made up of both cellulosic ethanol and cellulosic diesel fuels.

For assessing the impacts of the RFS2 standards, we used AEO 2009 (April release) cellulosic ethanol volumes (4.92 billion gallons), as well as the cellulosic biomass-to-liquids (BTL) diesel volumes (1.96 billion gallons) using Fischer-Tropsch (FT) processes. We consider BTL diesel from FT processes as a subset of cellulosic diesel. In order to reach a total of 16 billion ethanol-equivalent gallons, we assumed that an additional 4.56 billion gallons of cellulosic diesel could be produced from other cellulosic diesel processes. Refer to Section 1.2 of the RIA for more discussion.

b. Biomass-Based Diesel

Biomass-based diesel can include fatty acid methyl ester (FAME) biodiesel, renewable diesel (RD) that has not been co-processed with a petroleum feedstock, as well as cellulosic diesel. Although cellulosic diesel could potentially contribute to the biomass-based diesel category, we have assumed for our analyses that the fuel produced through Fischer-Tropsch (F–T) or other processes and its corresponding feedstocks (cellulosic biomass) are already accounted for in the cellulosic biofuel category discussed previously in Section IV.A.2.a.

FAME and RD processes can both utilize vegetable oils, rendered fats, and greases, and thus will generally compete for the same feedstock pool. We have based RD volumes on our forecast of industry plans, and expect these plants to use rendered fats as feedstock. Most biodiesel plants now have the capability to use vegetable or animal fats as feedstock, and thus our analysis assumes biodiesel will be made from a mix of inputs, depending on local availability, economics, and season. Refer to Section 1.1 of the RIA for more detail on FAME and RD feedstocks

Renewable diesel production can be further classified as co-processed or non-co-processed, depending on whether the renewable material is mixed with petroleum during the hydrotreating operations. EISA specifically forbids co-processed RD from being counted as biomass-based diesel, but it can still count toward the total advanced biofuel requirement. At this time, based on current industry plans, we expect most, if not all, RD will be non-co-processed (that is, non-refinery operations).

Perhaps the feedstock with the greatest potential for providing large volumes of oil for the production of biomass-based diesel is algae. However, several technical hurdles do still exist. Specifically, more efficient harvesting, dewatering, and lipid extraction methods are needed to lower costs to a level competitive with other feedstocks. For all three control cases, we have chosen to include 100 million gallons of algae-based biodiesel by 2022. We believe this is reasonable given several announcements from the algae industry about their production plans.[40] Although algae to biofuel companies can focus on producing algae oil for traditional biodiesel production, several companies are alternatively using algae for producing ethanol or crude oil for gasoline or diesel which could also help contribute to the advanced biofuel mandate. For more detail on algae as a feedstock, refer to Section 1.1 of the RIA.

During the comment period, we received information from stakeholders on alternative biodiesel feedstocks such as camelina and pennycress, to name a few. These feedstocks are currently being researched due to their potential for lower agricultural inputs and higher oil yields than traditional vegetable oil feedstocks as well as their use in additional crop rotations (i.e., winter cover crops) on a given area of land. We acknowledge that as we learn more about the challenges and benefits to the use of newer feedstocks, these could be used in the future towards meeting the biomass-based diesel standard under the RFS2 program provided they meet the lifecycle thresholds and definitions for renewable biomass. For the purpose of our impacts analysis, however, we have chosen not to include these feedstocks in our analyses at this time.

c. Other Advanced Biofuel

As defined in EISA, advanced biofuel includes the cellulosic biofuel and biomass-based diesel categories that were mentioned in Sections IV.A.2.a and IV.A.2.b above. However, EISA requires greater volumes of advanced biofuel than just the volumes required of these fuels. It is entirely possible that greater volumes of cellulosic biofuel and biomass-based diesel than required by EISA could be produced in the future. Our control case assumes that the cellulosic biofuel volumes will not exceed those required under EISA. We do assume, however, that additional biodiesel than that needed to meet the biomass-based diesel volume will be used to meet the total advanced biofuel volume. Despite additional volumes assumed from biodiesel, to fully meet the total advanced biofuel volume required under EISA, other types of advanced biofuel are necessary through 2022.

We have assumed for our control case that the most likely sources of advanced fuel other than cellulosic biofuel and biomass-based diesel would be from imported sugarcane ethanol and perhaps limited amounts of co-processed renewable diesel. Our assessment of international fuel ethanol production and demand indicate that anywhere from 3.8–4.2 Bgal of sugarcane ethanol from Brazil could be available for export by 2020/2022. If this volume were to be made available to the U.S., then there would be sufficient volume to meet the advanced biofuel standard. To calculate the amount of imported ethanol needed to meet the EISA advanced biofuel standards, we assumed it would make up the difference not met by cellulosic biofuel, biomass-based diesel and additional biodiesel categories (see Table IV.A.2–1). The amount of imported ethanol required by 2022 is approximately 2.2 Bgal.

[40] Sapphire Energy plans for 135 MMgal by 2018 and 1 Bgal by 2025; Petrosun plans for 30 MMgal/yr facility; Solazyme plans for 100 MMgal by 2012/13; U.S. Biofuels plans for 4 MMgal by 2010 and 50 MMgal by full scale. Only several companies have thus far revealed production plans, and more are announced each day. It is important to realize that future projections are highly uncertain, and we have taken into account the best information we could acquire at the time.

As discussed in the NPRM, other potential advanced biofuels could include for example, U.S. domestically produced sugarcane ethanol, biobutanol, and biogas. While we have not chosen to reflect these fuels in our control case, they can still be counted under our program assuming they meet the lifecycle thresholds and other definitions under the program.

d. Other Renewable Fuel

The remaining portion of total renewable fuel not met with advanced biofuel was assumed to come from corn-based ethanol (including small amounts from other grains and waste sugars). EISA effectively sets a limit for participation in the RFS program of 15 Bgal of corn ethanol, and we are assuming for our analysis that sufficient corn ethanol will be produced to meet the 15–Bgal limit that either meets the 20% GHG threshold or is grandfathered. It should be noted, however, that there is no specific "corn-ethanol" mandated volume, and that any advanced biofuel produced above and beyond what is required for the advanced biofuel requirements could reduce the amount of corn ethanol needed to meet the total renewable fuel standard. This occurs in our projections during the earlier years (2010–2015) in which we project that some fuels could compete favorably with corn ethanol (e.g., biodiesel and imported ethanol). Refer to Section 1.2 of the RIA for more details on interim years. Beginning around 2016, fuels qualifying as advanced biofuels likely will be devoted to meeting the increasingly stringent volume mandates for advanced biofuel. It is also important to note that more than 15 Bgal of corn ethanol could be produced and RINs generated for that volume under the RFS2 regulations. However, obligated parties would not be required to purchase more than 15 Bgal worth of non-advanced biofuel RINs, *e.g.* corn ethanol RINs.

3. Additional Control Cases Considered

Since there is significant uncertainty surrounding what fuels will be produced to meet the 16 billion gallon cellulosic biofuel standard, we have decided to investigate two other sensitivity cases for our cost and emission impact analyses conducted for the rule. The first case, we refer to as the "low-ethanol" control case and assume only 250 million gallons of cellulosic ethanol (from AEO 2007 reference case). The rest of the 16 billion gallon cellulosic biofuel standard is made up of cellulosic diesel as shown in Table IV.A.3–1. The second case, we refer to as the "high-ethanol" control case and assume the entire 16 billion gallon cellulosic biofuel standard is met with cellulosic ethanol, also shown in Table IV.A.3–1.

TABLE IV.A.3–1—CONTROL CASE PROJECTED RENEWABLE FUEL VOLUMES IN 2022

[Billion gallons]

Case/volume type	Advanced biofuel						Non-advanced biofuel	Total renewable fuel
	Cellulosic biofuel		Biomass-based diesel [a]		Other advanced biofuel			
	Cellulosic ethanol	Cellulosic diesel [b]	FAME [c] biodiesel	NCRD [d]	Other biodiesel [e]	Imported ethanol	Corn ethanol	
Low-Ethanol Straight Volume	0.25	9.26	0.85	0.15	0.82	2.24	15.00	28.57
Low-Ethanol Ethanol-Equivalent	0.25	15.75	1.28	0.26	1.23	2.24	15.00	36.00
High-Ethanol Straight Volume	16.00	0.00	0.85	0.15	0.82	2.24	15.00	35.06
High-Ethanol Ethanol-Equivalent	16.00	0.00	1.28	0.26	1.23	2.24	15.00	36.00

[a] Biomass-Based Diesel could include FAME biodiesel, cellulosic diesel, and non-co-processed renewable diesel.
[b] Cellulosic Diesel includes 1.96 billion gallons (3.33 ethanol-equivalent billion gallons) from Fischer-Tropsch Biomass-to-Liquids (BTL) processes and 7.30 billion gallons (12.42 ethanol-equivalent billion gallons) from other types of cellulosic diesel processes for the Low-Ethanol case and zero cellulosic diesel in the High-Ethanol Case.
[c] Fatty acid methyl ester (FAME) biodiesel.
[d] Non-Co-processed Renewable Diesel (NCRD).
[e] Other Biodiesel is biodiesel that could be produced in addition to the amount needed to meet the biomass-based diesel standard.

In comparison, our primary control case described in Section IV.A.2, could be considered a "mid-ethanol" control case, as the cellulosic ethanol and diesel volumes analyzed are in between the low-ethanol and high-ethanol cases described in this section. We believe the addition of these sensitivity cases is useful in understanding the potential impacts of the renewable fuels standards. Refer to Section 1.2 of the RIA for more detail on three control cases analyzed as part of this rule.

B. Renewable Fuel Production

1. Corn/Starch Ethanol

The majority of domestic biofuel production currently comes from plants processing corn and other similarly processed grains in the Midwest. However, there are a handful of plants located outside the Corn Belt and a few plants processing simple sugars from food or beverage waste. In this section, we summarize the present state of the corn/starch ethanol industry and discuss how we expect things to change in the future under the RFS2 program.

a. Historic/Current Production

The United States is currently the largest ethanol producer in the world. In 2008, the U.S. produced nine billion gallons of fuel ethanol for domestic consumption, the majority of which came from locally grown corn.[41] The nation is currently on track for producing over 10 billion gallons by the end of 2009.[42] Although the U.S. ethanol industry has been in existence since the 1970s, it has rapidly expanded in recent years due to the phase-out of methyl tertiary butyl ether (MTBE), elevated crude oil prices, state mandates and tax incentives, the introduction of the Federal Volume Ethanol Excise Tax

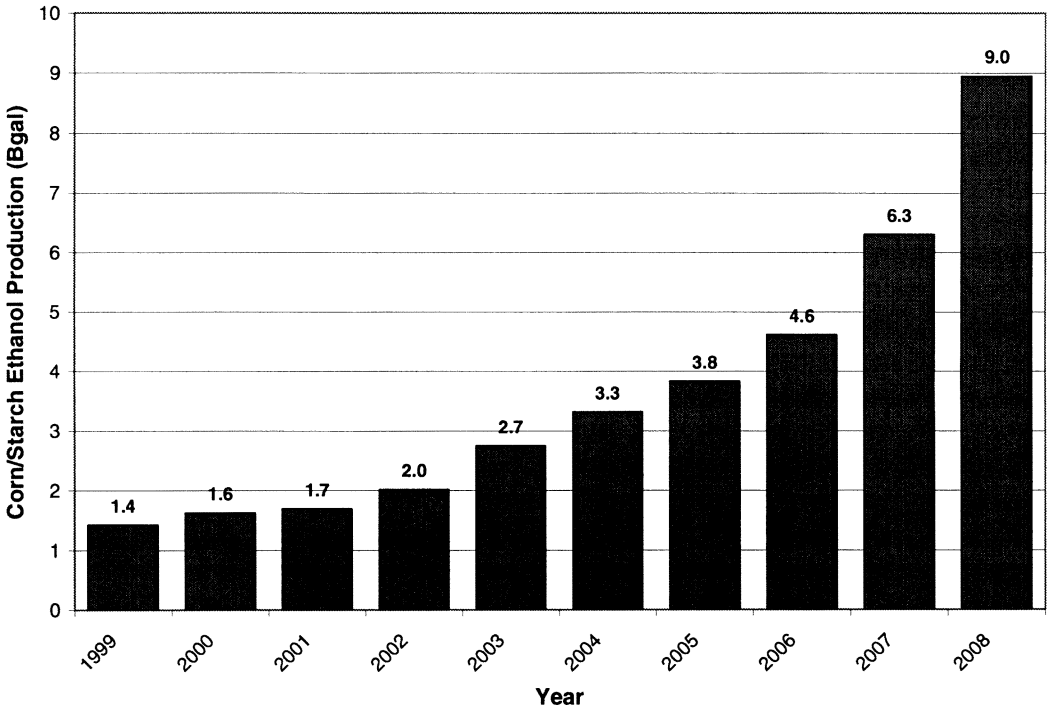
[41] Based on total transportation ethanol reported in EIA's September 2009 Monthly Energy Review (Table 10.2) less imports (*http://tonto.eia.doe.gov/dnav/pet/hist/mfeimus1a.htm*).

[42] Based on ethanol projected in EIA's October 2009 Short Term Energy Outlook less projected imports. Actual year-end data for 2009 was unavailable at the time of this FRM assessment.

Credit (VEETC),[43] the implementation of the existing RFS1 program,[44] and the new volume requirements established under EISA. As shown in Figure IV.B.1–1, U.S. ethanol production has grown exponentially over the past decade.

Figure IV.B.1-1

Historical Growth in U.S. Corn/Starch Ethanol Production[45]



As of November 2009 there were 180 corn/starch ethanol plants operating in the U.S. with a combined production capacity of approximately 12 billion gallons per year.[46] This does not include idled ethanol plants, discussed later in this subsection. The majority of today's ethanol production (91.5% by volume) comes from 155 plants relying exclusively on corn. Another 8.3% comes from 18 plants processing a blend of corn and/or similarly processed grains (milo, wheat, or barley). The remainder comes from seven small plants processing waste beverages or other waste sugars and starches.

Of the 173 plants processing corn and/or other similarly processed grains, 162 utilize dry-milling technologies and the remaining 11 plants rely on wet-milling processes. Dry mill ethanol plants grind the entire kernel and generally produce only one primary co-product: distillers' grains with solubles (DGS). The co-product is sold wet (WDGS) or dried (DDGS) to the agricultural market as animal feed. However, there are a growing number of plants using front-end fractionation to produce food-grade corn oil or back-end extraction to produce fuel-grade corn oil for the biodiesel industry. A company called GreenShift has corn oil extraction facilities located at five ethanol plants in Michigan, Indiana, New York and Wisconsin.[47] Collectively, these facilities are designed to extract in excess of 7.3 million gallons of corn oil per year. Primafuel Solutions is another company offering corn oil extraction technologies to make existing ethanol plants more sustainable. For more information on corn oil extraction and other advanced technologies being pursued by today's corn ethanol industry, refer to Section 1.4.1 of the RIA.

In contrast to dry mill plants, wet mill facilities separate the kernel prior to processing into its component parts (germ, fiber, protein, and starch) and in turn produce other co-products (usually gluten feed, gluten meal, and food-grade corn oil) in addition to DGS. Wet mill

[43] On October 22, 2004, President Bush signed into law H.R. 4520, the American Jobs Creation Act of 2004 (JOBS Bill), which created the Volumetric Ethanol Excise Tax Credit (VEETC). The $0.51/gal ethanol blender credit replaced the former fuel excise tax exemption, blender's credit, and pure ethanol fuel credit. However, the 2008 Farm Bill modified the alcohol credit so that corn ethanol gets a reduced credit of $0.45/gal and cellulosic biofuel gets a credit of $1.01/gal.

[44] On May 1, 2007, EPA published a final rule (72 FR 23900) implementing the Renewable Fuel Standard required by EPAct (also known as RFS1). RFS1 requires that 4.0 billion gallons of renewable fuel be blended into gasoline/diesel by 2006, growing to 7.5 billion gallons by 2012.

[45] Based on total transportation ethanol reported in EIA's September 2009 Monthly Energy Review (Table 10.2) less imports (*http://tonto.eia.doe.gov/dnav/pet/hist/mfeimus1a.htm*).

[46] Our November 2009 corn/starch ethanol industry characterization was based on a variety of sources including plant lists published online by the Renewable Fuels Association and Ethanol Producer Magazine (updated October 22, 2009), information from ethanol producer Web sites including press releases, and follow-up correspondence with producers. The baseline does not include ethanol plants whose primary business is industrial or food-grade ethanol production nor does it include plants that might be located in the Virgin Islands or U.S. territories. Where applicable, current/historic production levels have been used in lieu of nameplate capacities to estimate production capacity.

[47] Two plants in Michigan and one in each of the other three states. All company information based on GreenShift's Q2 2009 SEC filing available at *http://www.greenshift.com/pdf/GERS_Form10Q_Q209_FINAL.pdf.*

plants are generally more costly to build but are larger in size on average.[48] As such, 11.4% of the current grain ethanol production comes from the 11 previously mentioned wet mill facilities.

The remaining seven ethanol plants process waste beverages or waste sugars/starches and operate differently than their grain-based counterparts. These small production facilities do not require milling and operate simpler enzymatic fermentation processes.

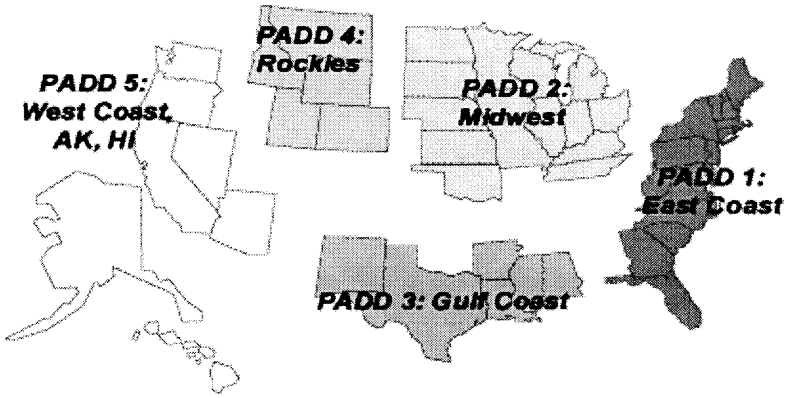
Ethanol production is a relatively resource-intensive process that requires the use of water, electricity, and steam. Steam needed to heat the process is generally produced on-site or by other dedicated boilers.[49] The ethanol industry relies primarily on natural gas. Of today's 180 ethanol production facilities, an estimated 151 burn natural gas [50] (exclusively), three burn a combination of natural gas and biomass, one burns natural gas and coal (although natural gas is the primary fuel), one burns a combination of natural gas, landfill biogas and wood, and two burn natural gas and syrup from the process. We are aware of 17 plants that burn coal as their primary fuel and one that burns a combination of coal and biomass.[51] Our research suggests that three corn ethanol plants rely on a combination of waste heat and natural gas and one plant does not have a boiler and relies solely on waste heat from a nearby power plant. Overall, our research suggests that 27 plants currently utilize cogeneration or combined heat and power (CHP) technology, although others may exist.[52] CHP is a mechanism for improving overall plant efficiency. Whether owned by the ethanol facility, their local utility, or a third party, CHP facilities produce their own electricity and use the waste heat from power production for process steam, reducing the energy intensity of ethanol production.[53]

During the ethanol fermentation process, large amounts of carbon dioxide (CO_2) gas are released. In some plants the CO_2 is vented into the atmosphere, but where local markets exist, it is captured, purified, and sold to the food processing industry for use in carbonated beverages and flash-freezing applications. We are currently aware of 40 fuel ethanol plants that recover CO_2 or have facilities in place to do so. According to Airgas, a leading gas distributor, the U.S. ethanol industry currently recovers 2 to 2.5 million tons of CO_2 per year which translates to about 5–7% of all the CO_2 produced by the industry.[54]

Since the majority of ethanol is made from corn, it is no surprise that most of the plants are located in the Midwest near the Corn Belt. Of today's 180 ethanol production facilities, 163 are located in the 15 states comprising PADD 2. For a map of the government's Petroleum Administration for Defense Districts or PADDs, refer to Figure IV.B.1–2.

Figure IV.B.1-2

Petroleum Administration for Defense Districts



As a region, PADD 2 accounts for over 94% (or 11.3 billion gallons) of today's estimated ethanol production capacity, followed by PADD 3 (2.4%), PADDs 4 and 1 (each with 1.3%) and PADD 5 (0.8%). For more information on today's ethanol plant locations, refer to Section 1.5.1 of the RIA.

The U.S. ethanol industry is currently comprised of a mixture of company-owned plants and locally-owned farmer cooperatives (co-ops). The majority of today's ethanol production facilities are company-owned, and on average these plants are larger in size than farmer-owned co-ops. Accordingly, these facilities account for about 80% of today's online ethanol production capacity.[55] Furthermore, nearly 30% of the total domestic product comes from 40 plants owned by just three different companies—POET Biorefining, Archer Daniels Midland (ADM), and Valero Renewables. Valero entered the ethanol industry in March of 2009 when it acquired seven ethanol plants from

[48] According to our November 2009 corn ethanol plant assessment, the average wet mill plant capacity is 125 million gallons per year—almost twice that of the average dry mill plant capacity (65 million gallons per year). For more on average plant sizes, refer to Section 1.5 of the RIA.

[49] Some plants pull steam directly from a nearby utility.

[50] Facilities were assumed to burn natural gas if the plant boiler fuel was unspecified or unavailable on the public domain.

[51] Includes corrections from NPRM based on new information obtained on Cargill plants and Blue Flint ethanol plant.

[52] CHP assessment based on information provided by EPA's Combined Heat and Power Partnership, literature searches and correspondence with ethanol producers.

[53] For more on CHP technology, refer to Section 1.4.1.3 of the RIA.

[54] Based on information provided by Bruce Woerner at Airgas on August 14, 2009.

[55] Company-owned plants were assumed to be all those companies not denoted as locally-owned based on Renewable Fuels Association (RFA), Ethanol Biorefinery Locations (updated October 22, 2009). For more on average plant sizes, refer to Section 1.5.1 of the RIA.

former ethanol giant, Verasun. The oil company currently has agreements in place to purchase three more ethanol plants that would bring the company's ethanol production capacity to 1.1 billion gallons per year.[56] However, ethanol plants are much smaller than petroleum refineries. Valero's smallest petroleum refinery in Ardmore, OK has about twice the throughput of all its ethanol plants combined.[57] Still, as obligated parties under RFS1 and RFS2, the refining industry continues to show increased interest in biofuels. Suncor and Murphy Oil recently joined Valero as the second and third oil companies to purchase idled U.S. ethanol plants. Many refiners are also supporting the development of cellulosic biofuels and algae-based biodiesel.

b. Forecasted Production Under RFS2

As highlighted earlier, domestic ethanol production is projected to grow to over 10 billion gallons in 2009. And with over 12 billion gallons of capacity online as of November 2009, ethanol production should continue to grow in 2010, provided plants continue to produce at or above today's production levels. In addition, despite current market conditions (i.e., poor ethanol margins), the ethanol industry is expected to grow in the future under the RFS2 program. Although there is not a set corn ethanol requirement, EISA allows for 15 billion gallons of the 36-billion gallon renewable fuel standard to be met by conventional biofuels. We expect that corn ethanol will fulfill this requirement, provided it is more cost competitive than imported ethanol or cellulosic biofuel in the marketplace.

In addition to the 180 aforementioned corn/starch ethanol plants currently online, 27 plants are presently idled.[58] Some of these are smaller ethanol plants that have been idled for quite some time, whereas others are in a more temporary "hot idle" mode, ready to be restarted. In response to the economic downturn, a number of ethanol producers have idled production, halted construction projects, sold off plants and even filed for Chapter 11 bankruptcy protection. Some corn ethanol companies have exited the industry all together (*e.g.,* Verasun) whereas others are using bankruptcy as a means to protect themselves from creditors as they restructure their finances with the goal of becoming sustainable.

Crude oil prices are expected to increase in the future making corn ethanol more economically viable. According to EIA's AEO 2009, crude oil prices are projected to increase from about $80/barrel (today's price) to $116/barrel by 2022.[59] As oil and gas prices rebound, we expect that the biofuels industry will as well. Since our April 2009 industry assessment used for the NPRM, at least nine corn ethanol plants have come back online.

For analysis purposes, we assumed that all 27 idled corn/starch ethanol plants would resume operations by 2022 under the RFS2 program. We also assumed that a total of 11 new ethanol plants and two expansion projects currently under construction or in advanced stages of planning would come online.[60] This includes two large dry mill expansion projects currently underway at existing ADM wet mill plants and two planned combination corn/cellulosic ethanol plants that received funding from DOE. While several of these projects are delayed or on hold at the moment, we expect that these facilities (or comparable replacement projects) would eventually come online to get the nation to approximately 15 billion gallons of corn ethanol production capacity.

Almost 100% of conventional ethanol plant growth is expected to come from facilities processing corn or other similarly processed grains. And not surprisingly, the majority of growth (approximately 70% by volume) is expected to originate from PADD 2. However, growth is expected to occur in all PADDs. With the exception of one facility,[61] all new corn/grain ethanol plants are expected to utilize dry milling technologies and the majority of new production is expected to come from plants burning natural gas. However, we anticipate that two manure biogas plants,[62] one biomass-fired plant, and two coal-fired ethanol plants will be added to the mix.[63] Of these new and returning idled plants, we're aware of five facilities currently planning to use CHP technology, bringing the U.S. total to 32.

The above predictions are based on the industry's current near-term production plans. However, we anticipate additional growth in advanced ethanol production technologies under the RFS2 program. Forecasted fuel prices are projected to drive corn ethanol producers to transition from conventional boiler fuels to biomass feedstocks. In addition, fossil fuel/electricity prices will likely drive a number of ethanol producers to pursue CHP technology. For more on our projected 2022 utilization of these technologies under the RFS2 program, refer to Section 1.5.1.3 of the RIA.

2. Imported Ethanol

As discussed in the proposal, ethanol imports have traditionally played a relatively small role in the U.S. transportation fuel market due to historically low crude prices and the tariff on imported ethanol. Between years 2000 and 2008, the volume of ethanol imported into the U.S. has ranged from 46–720 million gallons per year. So far this year, from January through November 2009, imported ethanol has only reached 197 million gallons.[64] As the data show, the volume of imported ethanol can fluctuate greatly.

In the past, the majority of volume has originated from countries that are part of the Caribbean Basin Initiative. Direct Brazilian imports have also made up a sizeable portion of total ethanol imported into the U.S. However, recently there have been relatively small amounts of direct imports of ethanol from Brazil.[65] This indicates that current market conditions have made importing Brazilian ethanol directly to the U.S. uneconomical. Part of the reason for this decline in imports is the cessation of the duty drawback that became effective on October 1, 2008, but also changes in world sugar prices.[66]

[56] Valero recently announced that it has purchase agreements in place to acquire the last two Verasun plants in Linden, IN and Bloomington, OH and the former Renew Energy plant in Jefferson Junction, WI.

[57] Based on refinery information provided at *http://www.valero.com/OurBusiness/OurLocations/.*

[58] Based on our November 2009 corn/starch ethanol industry characterization. We are aware of at least one plant that has come back online since then.

[59] EIA, Annual Energy Outlook 2009—ARRA Update (Table 12).

[60] Sources include Renewable Fuels Association, Ethanol Biorefinery Locations (updated October 22, 2009) and Ethanol Producer Magazine, Producing, Not Producing, Under Construction, and Expansions lists (last modified on October 22, 2009) in addition to information gathered from producer Web sites and follow-up correspondence.

[61] Tate and Lyle is currently in the process of building a 115 MGY wet mill corn ethanol plant in Fort Dodge, IA.

[62] One manure biogas plant that is currently idled and another that was under construction but is now on hold.

[63] The two coal fired plants are the aforementioned dry mill expansion projects currently underway at existing ADM sites. These projects commenced construction on or before December 19, 2007 and would therefore should likely be grandfathered under the RFS2 rule. For more on our grandfathering assessment, refer to Section 1.5.1.4 of the RIA.

[64] Official Statistics of the U.S. Department of Commerce, U.S. ITC.

[65] Approximately 19,000 gallons directly from Brazil in the month of June 2009 and 4 million gallons from Brazil in the month of November 2009, zero gallons reported from November 2008–May 2009 and July 2009–October 2009.

[66] Lundell, Drake, "Brazilian Ethanol Export Surge to End; U.S. Customs Loophole Closed Oct.

It is difficult to project the potential volume of future ethanol imports to the U.S. based purely on historical data. Rather, it is necessary to assess future import potential by analyzing the major players for foreign ethanol production and consumption. In 2008, the top three fuel ethanol producers were the U.S., Brazil, and the European Union (EU), producing 9.0, 6.5, and 0.7 billion gallons, respectively.[67] Consumption of fuel ethanol is also dominated by the United States and Brazil with approximately 9.6 and 4.9 billion gallons consumed in each country, respectively.[68] [69] The EU consumed approximately 0.9 billion gallons of fuel ethanol in 2008.[70]

In our assessment of foreign ethanol production and consumption, we analyzed the following countries or group of countries: Brazil, the EU, Japan, India, and China. Our analyses indicate that Brazil would likely be the only nation able to supply any meaningful amount of ethanol to the U.S. in the future. Depending on whether the mandates and goals of the EU, Japan, India, and China are enacted or met in the future, it is likely that this group of countries would consume any growth in their own production and be net importers of ethanol, thus competing with the U.S. for Brazilian ethanol exports.

Due to uncertainties in the future demand for ethanol domestically and internationally, uncertainties in the actual investments made in the Brazilian ethanol industry, as well as uncertainties in future sugar prices, there appears to be a wide range of Brazilian production and domestic consumption estimates. The most current and complete estimates indicate that total Brazilian ethanol exports will likely reach 3.8–4.2 billion gallons by 2022.[71] [72] [73] As this volume of ethanol export is available to countries around the world, only a portion of this will be available exclusively to the United States. If the balance of the EISA advanced biofuel requirement not met with cellulosic biofuel and biomass-based diesel were to be met with imported sugarcane ethanol alone, it would require about 2.2 billion gallons (see Table IV.A.2–1), or approximately 55% of total Brazilian ethanol export estimates. This is aggressive, yet within the bounds of reason, therefore, we have made this simplifying assumption for the purposes of further analysis.

Generally speaking, Brazilian ethanol exporters will seek routes to countries with the lowest costs for transportation, taxes, and tariffs. With respect to the U.S., the most likely route is through the Caribbean Basin Initiative (CBI).[74] Brazilian ethanol entering the U.S. through CBI countries is not currently subject to the 54 cent/gal imported ethanol tariff and yet receives the 45 cent/gal ethanol blender credit. In addition to the U.S., other countries also have similar tariffs on imported ethanol. Refer to Section 1.5.2 of the RIA for more details. Due to the economic incentive of transporting ethanol through the CBI, we expect the majority of the tariff rate quota (TRQ) to be met or exceeded, perhaps 90% or more. The TRQ is set each year as 7% of the total domestic ethanol consumed in the prior year. If we assume that 90% of the TRQ is met and that total domestic ethanol (corn and cellulosic ethanol) consumed in 2021 was 19.2 Bgal (under the primary control case), then approximately 1.21 Bgal of ethanol could enter the U.S. through CBI countries in 2022. The rest of the Brazilian ethanol exports not entering the CBI will compete on the open market with the rest of the world demanding some portion of direct Brazilian ethanol. To meet our advanced biofuel standard, we assumed 1.03 Bgal of sugarcane ethanol would be imported directly to the U.S. in 2022.

3. Cellulosic Biofuel

The majority of the biofuel currently produced in the United States comes from plants processing first-generation feedstocks like corn, plant oils, sugarcane, etc. Non-edible cellulosic feedstocks have the potential to greatly expand biofuel production, both volumetrically and geographically. Research and development on cellulosic biofuel technologies has exploded over the last few years, and plants to commercialize a number of these technologies are already beginning to materialize. The $1.01/gallon tax credit for cellulosic biofuel that was introduced in the 2008 Farm Bill and recently became effective, is also offering much incentive to this developing industry. In addition to today's RFS2 program which sets aggressive goals for cellulosic biofuel production, the Department of Energy (DOE), Department of Agriculture (USDA), Department of Defense (DOD) and state agencies are helping to spur industry growth.

a. Current State of the Industry

There are a growing number of biofuel producers, biotechnology companies, universities and research institutes, start-up companies as well as refiners investigating cellulosic biofuel production. The industry is currently pursuing a wide range of feedstocks, conversion technologies and fuels. There is much optimism surrounding the long-term viability of cellulosic ethanol and other alcohols for gasoline blending. There is also great promise and growing interest in synthetic hydrocarbons like gasoline, diesel and jet fuel as "drop in" petroleum replacements. Some companies intend to start by processing corn or sugarcane and then transition to cellulosic feedstocks while others are focusing entirely on cellulosic materials. Regardless, cellulosic biofuel production is beginning to materialize.

We are currently aware of over 35 small pilot- and demonstration-level plants operating in North America. However, the main focus at these facilities is research and development, not commercial production. Most of the plants are rated at less than 250,000 gallons per year and that's if they were operated at capacity. Most only operate intermittently for the purpose of demonstrating that the technologies can be used to produce transportation fuels. The industry as a whole is still working to increase efficiency, improve yields, reduce costs and prove to the public, as well as investors, that cellulosic biofuel is both technologically and economically feasible.

As mentioned above, a variety of feedstocks are being investigated for cellulosic biofuel production. There is a great deal of interest in urban waste (MSW and C&D debris) because it is

1," Ethanol and Biodiesel News, Issue 45, November 4, 2008.

[67] Renewable Fuels Association (RFA), "2008 World Fuel Ethanol Production, " *http://www.ethanolrfa.org/industry/statistics/#E,* March 31, 2009.

[68] *Ibid.*

[69] UNICA, "Sugarcane Industry in Brazil: Ethanol Sugar, Bioelectricity" Brochure, 2008.

[70] EurObserv'ER, "Biofuels Barometer" July 2009, *http://www.eurobserv-er.org/pdf/baro192.pdf.*

[71] EPE, "Plano Nacional de Energia 2030," Presentation from Mauricio Tolmasquim, 2007.

[72] UNICA, "Sugarcane Industry in Brazil: Ethanol, Sugar, Bioelectricity," 2008.

[73] USEPA International Visitors Program Meeting October 30, 2007, correspondence with Mr. Rodrigues Technical Director from UNICA Sao Paulo Sugarcane Agro-industry Union, stated approximately 3.7 billion gallons probable by 2017/2020; Consistent with brochure "Sugarcane Industry in Brazil: Ethanol Sugar, Bioelectricity" from UNICA (3.25 Bgal export in 2015 and 4.15 Bgal export in 2020).

[74] Other preferential trade agreements include the North American Free Trade Agreement (NAFTA) which permits tariff-free ethanol imports from Canada and Mexico and the Andean Trade Promotion and Drug Eradication Act (ATPDEA) which allows the countries of Columbia, Ecuador, Bolivia, and Peru to import ethanol duty-free. Currently, these countries export or produce relatively small amounts of ethanol, and thus we have not assumed that the U.S. will receive any substantial amounts from these countries in the future for our analyses.

virtually free and abundant in many parts of the country, including large metropolitan areas where the bulk of fuel is consumed. There is also a lot of interest in agricultural residues (corn stover, rice and other cereal straws) and wood (forest thinnings, wood chips, pulp and paper mill waste and yard waste). However, researchers are still working to find viable harvesting and storage solutions. Others are investigating the possibility of growing dedicated energy crops for cellulosic biofuel production, *e.g.,* switchgrass, energy cane, sorghum, poplar, miscanthus and other fast-growing trees. While these crops have tremendous potential, many are starting with the feedstocks that are available today with the mentality that once the industry has proven itself, it will be easier to secure growing contracts and start producing energy crops. For more information on cellulosic feedstock availability, refer to preamble Section IV.B.3.d and Section 1.1.2 of the RIA.

The industry is also pursuing a number of different cellulosic conversion technologies and biofuels. Most of the technologies fall into one of two categories: biochemical or thermochemical. Biochemical conversion involves the use of acids and/or enzymes to hydrolyze cellulosic materials into fermentable sugars and lignin. Thermochemical conversion involves the use of heat to convert biomass into synthesis gas or pyrolysis oil for upgrading. A third technology pathway is emerging that involves the use of catalysts to depolymerize or reform the feedstocks into fuel. The technologies currently being considered are capable of producing cellulosic alcohols or hydrocarbons for the transportation fuel market. Many companies are also researching the potential of co-firing biomass to produce plant energy in addition to biofuels. For a more in-depth discussion on cellulosic technologies, refer to Section 1.4.3 of the RIA.

b. Setting the 2010 Cellulosic Biofuel Standard

The Energy Independence and Security Act (EISA) set aggressive cellulosic biofuel targets beginning with 100 million gallons in 2010. However, EISA also supplied EPA with cellulosic biofuel waiver authority. For any calendar year in which the projected cellulosic biofuel production is less than the minimum applicable volume, EPA can reduce the standard based on the volume expected to be available that year. EPA is required to set the annual cellulosic standard by November 30th each year and should consider the annual estimate made by EIA by October 31st of each year. We are setting the 2010 standard as part of this final rule.

Setting the cellulosic biofuel standard for 2010 represents a unique challenge. As discussed above, the industry is currently characterized by a wide range of companies mostly focused on research, development, demonstration, and financing their developing technologies. In addition, while we are finalizing a requirement that producers and importers of renewable fuel provide us with production outlook reports detailing future supply estimates (refer to § 80.1449), we do not have the benefit of this valuable cellulosic supply information for setting the 2010 standard. Finally, since today's cellulosic biofuel production potential is relatively small, and the number of potential producers few (as described in more detail below), the overall volume for 2010 can be heavily influenced by new developments, either positive or negative associated with even a single company, which can be very difficult to predict. This is evidenced by the magnitude of changes in cellulosic biofuel projections and the potential suppliers of these fuels since the proposal.

In the proposal, we did a preliminary assessment of the cellulosic biofuel industry to arrive at the conclusion that it was possible to uphold the 100 million gallon standard in 2010 based on anticipated production. At the time of our April 2009 NPRM assessment, we were aware of a handful of small pilot and demonstration plants that could help meet the 2010 standard, but the largest volume contributions were expected to come from Cello Energy and Range Fuels.

Cello Energy had just started up a 20 million gallon per year (MGY) cellulosic diesel plant in Bay Minette, AL. EPA staff visited the facility twice in 2009 to confirm that the first-of-its-kind commercial plant was mechanically complete and poised to produce cellulosic biofuel. It was assumed that start-up operations would go as planned and that the facility would be operating at full capacity by the end of 2009 and that three more 50 MGY cellulosic diesel plants planned for the Southeast could be brought online by the end of 2010.

At the time of our assessment, we were also anticipating cellulosic biofuel production from Range Fuels' first commercial-scale plant in Soperton, GA. The company received a $76 million grant from DOE to help build a 40 MGY wood-based ethanol plant and they broke ground in November 2007. In January 2009, Range was awarded an $80 million loan guarantee from USDA.[75] With the addition of this latest capital, the company seemed well on its way to completing construction of its first 10 MGY phase by the end of 2009 and beginning production in 2010.

Since our April 2009 industry assessment there have been a number of changes and delays in production plans due to technological, contractual, financial and other reasons. Cello Energy and Range Fuels have delayed or reduced their production plans for 2010. Some of the small plants expected to come online in 2010 have pushed back production to the 2011–2012 timeframe, e.g., Clearfuels Technology, Fulcrum River Biofuels, and ZeaChem. Alltech/Ecofin and RSE Pulp & Chemical, two companies that were awarded DOE funding back in 2008 to build small-scale biorefineries appear to be permanently on hold or off the table. In addition, Bell Bio-Energy, a company that received DOD funding has since abandoned plans to produce cellulosic diesel from MSW at U.S. military bases.[76]

At the same time, there has also been an explosion of new companies, new business relationships, and new advances in the cellulosic biofuel industry. Keeping track of all of them is a challenge in and of it self as the situation can change on a daily basis. EIA recently provided EPA with their first cellulosic biofuel supply estimate required under CAA section 211(o)(7)(D)(i). In a letter to the Administrator dated October 29, 2009, they arrived at a 5.04 million gallon estimate for 2010 based on publicly available information and assumptions made with respect production capacity utilization.[77] A summary of the plants they considered is shown below in Table IV.B.3–1.

[75] For more information on federal support for biofuels, refer to Section 1.5.3.3 of the RIA.

[76] Bell Bio-Energy is currently investigating other locations for turning MSW into diesel fuel according to an October 14, 2009 conversation with JC Bell.

[77] Letter from Richard Newell, EIA Administrator to Lisa Jackson, EPA Administrator dated October 29, 2009 (Table 2).

TABLE IV.B.3–1—EIA'S PROJECTED CELLULOSIC BIOFUEL PLANT PRODUCTION CAPACITIES FOR 2010

Online	Company	Location	Product	Capacity (million gallons)	Expected utilization (%)	Production (million gallons) [3]
2007	KL Process Design	Upton, WY	Ethanol	1.5	10	0.15
2008	Verenium	Jennings, LA	Ethanol	1.4	10	0.14
2008	Terrabon	Bryan, TX	Bio-Crude	0.93	10	0.09
2010	Zeachem	Boardman, OR	Ethanol	1.5	10	0.15
2010	Cello Energy	Bay Minette, AL	Diesel	20.0	10 [1]	2.00
2010	Range Fuels	Soperton, GA	Ethanol	5.0 [2]	50	2.5
Total				30.35		5.04

Notes: 1. Cello Energy is assigned a 10-percent utilization factor as they have not been able to run on a continuous basis long enough to apply for a Synthetic Minor Operating Permit or produce significant amounts of fuel during 2009. 2. It is estimated that only half the 2010 projected capacity (10 million gallons per year) will be a qualified fuel. 3. The production from these facilities in 2009 is not surveyed by EIA or EPA.

In addition to receiving EIA's information and coordinating with them and other offices in DOE, we have initiated meetings and conversations with over 30 up-and-coming advanced biofuel companies to verify publicly available information, obtain confidential business information, and better assess the near-term cellulosic biofuel production potential for use in setting the 2010 standard. What we have found is that the cellulosic biofuel landscape has continued to evolve. Based on information obtained, not only do we project significantly different production volumes on a company-by-company basis, but the list of potential producers of cellulosic biofuel in 2010 is also significantly different than that identified by EIA.

Overall, our industry assessment suggests that it is difficult to rely on commercial production from small pilot or demonstration-level plants. The primary purpose of these facilities is to prove that a technology works and demonstrate to investors that the process is capable of being scaled up to support a larger commercial plant. Small plants are cheaper to build to demonstrate technology than larger plants, but the operating costs ($/gal) are higher due to their small scale. As a result, it's not economical for most of these facilities to operate continuously. Most of these plants are regularly shut down and restarted as needed as part of the research and development process. Due to their intermittent nature, most of these plants operate at a fraction of their rated capacity, some less than the 10% utilization rate assumed by EIA. In addition, few companies plan on making their biofuel available for commercial sale.

However, there are at least two cellulosic biofuel companies currently operating demonstration plants in the U.S. and Canada that could produce fuel commercially in 2010. The first is KL Energy Corporation, a company we considered for the NPRM with a 1.5 MGY cellulosic ethanol plant in Upton, WY. This plant was considered by EIA and is included in Table IV.B.3–1. The second is Iogen's cellulosic ethanol plant in Ottawa, Canada with a 0.5 MGY capacity. Iogen's commercial demonstration plant was referenced by EIA as a potential foreign source for cellulosic biofuel but was not included in their final table. In addition to these online demonstration plants, there are three additional companies not on EIA's list that are currently building demonstration-level cellulosic biofuel plants in North America that are scheduled to come online in 2010. This includes DuPont Danisco Cellulosic Ethanol and Fiberight, companies building demonstration plants in the U.S. and Enerkem, a company building a demonstration plant in Canada. Cello Energy's plant in Bay Minette, AL continues to offer additional potential for cellulosic biofuel in 2010. And finally, Dynamotive, a company that currently has two biomass-based pyrolysis oil production plants in Canada is another potential source of cellulosic biofuel in 2010. All seven aforementioned companies are discussed in greater detail below along with Range Fuels.

KL Energy Corporation (KL Energy), through its majority-owned Western Biomass Energy, LLC (WBE) located in Upton, WY, is designed to convert wood products and wood waste products into ethanol. Since the end of construction in September 2007, equipment commissioning and process revisions continued until the October 2009 startup. The plant was built as a 1.5 MGY demonstration plant and was designed to both facilitate research and operate commercially. It is KL Energy's intent that WBE's future use will involve the production and sale of small but commercial-quality volumes of ethanol and lignin co-product. The company's current 2010 goal is for WBE to generate RINs under the RFS2 program.[78]

Iogen is responsible for opening the first commercial demonstration cellulosic ethanol plant in North America. Iogen's plant located in Ottawa, Canada has been producing cellulosic ethanol from wheat straw since 2004. Like KL Energy, Iogen has slowly been ramping up production at its 0.5 MGY plant. According to the company's Web site, they produced approximately 24,000 gallons in 2004 and 34,000 gallons in 2005. Production dropped dramatically in 2006 and 2007 but came back strong with 55,000 gallons in 2008. Iogen recently produced over 150,000 gallons of ethanol from the demonstration plant in 2009. Iogen also recently became the first cellulosic ethanol producer to sell its advanced biofuel at a retail service station in Canada. Their cellulosic ethanol was blended to make E10 available for sale to consumers at an Ottawa Shell station. Iogen also recently announced plans to build its first commercial scale plant in Prince Albert, Saskatchewan in the 2011/2012 timeframe. Based on the company's location and operating status, Iogen certainly has the potential to participate in the RFS2 program. However, at this time, we are not expecting them to import any cellulosic ethanol into the U.S. in 2010.[79]

DuPont Danisco Cellulosic Ethanol, LLC (DDCE), a joint venture between DuPont and Danisco, is another potential source for cellulosic biofuel in 2010. DDCE received funding from the State of Tennessee and the University of Tennessee to build a small 0.25 MGY demonstration plant in Vonore, TN to

[78] Based on information provided by Lori Litzen, Environmental Permit Engineer at KL Energy on December 10, 2009.

[79] Based on Web site information, comments submitted in response to our proposal, and a follow-up phone call with Iogen Executive VP, Jeff Passmore on December 17, 2009.

pursue switchgrass-to-ethanol production. According to DDCE, construction commenced in October 2008 and the plant is now mechanically complete and undergoing start-up operations. The facility is scheduled to come online by the end of January and the company hopes to operate at or around 50% of production capacity in 2010. According to the DDCE, the objective in Vonore is to validate processes and data for commercial scale-up, not to make profits. However, the company does plan to sell the cellulosic ethanol it produces.[80]

Enerkem is another company pursuing cellulosic ethanol production. The Canadian-based company was recently announced as a recipient of a joint $50 million grant from DOE and USDA to build a 10 MGY woody biomass-to-ethanol plant in Pontotoc, MS.[81] The U.S. plant is not scheduled to come online until 2012, but Enerkem is currently building a 1.3 MGY demonstration plant in Westbury, Quebec. According to the company, plant construction in Westbury started in October 2007 and the facility is currently scheduled to come online around the middle of 2010. While it's unclear at this time whether the cellulosic ethanol produced will be exported to the United States, Enerkem has expressed interest in selling its fuel commercially.[82]

Additional cellulosic biofuel could come from Fiberight, LLC (Fiberight) in 2010. We recently became aware of this start-up company and contacted them to learn more about their process and cellulosic biofuel production plans. According to Fiberight, they have been operating a pilot-scale facility in Lawrenceville, VA for three years. They have developed a proprietary process that not only fractionates MSW but biologically converts the non-recyclable portion into cellulosic ethanol and biochemicals. Fiberight recently purchased a shut down corn ethanol plant in Blairstown, IA and plans to convert it to become MSW-to-ethanol capable. According to the company, construction is currently underway and the goal is to bring the 2 MGY demonstration plant online by February or March, 2010. If the plant starts up according to plan, the company intends on making cellulosic ethanol commercially available in 2010 and generating RINS under the RFS2 program. Fiberight's long-term goal is to expand the Blairstown plant to a 5–8 MGY capacity and build other small commercial plants around the country that could convert MSW into fuel.[83]

Cello Energy, a company considered in the proposal, continues to be another viable source for cellulosic biofuel in 2010. Despite recent legal issues which have constrained the company's capital, Cello Energy is still pursuing cellulosic diesel production. According to the company, they are currently working to resolve materials handling and processing issues that surfaced when they attempted to scale up production to 20 MGY from a previously operated demonstration plant. As of November 2009, they were waiting for new equipment to be ordered and installed which they hoped would allow for operations to be restarted as early as February or March, 2010. Cello's other planned commercial facilities are currently on hold until the Bay Minette plant is operational.[84]

Another potential supplier of cellulosic biofuel is Dynamotive Energy Systems (Dynamotive) headquartered in Vancouver, Canada. Dynamotive currently has two plants in West Lorne and Guelph, Ontario that produce biomass-based pyrolysis oil (also known as "BioOil") for industrial applications. The BioOil production capacity between the two plants is estimated at around 9 MGY, but both plants are currently operating at a fraction of their rated capacity.[85] However, according to a recent press release, Dynamotive has contracts in place to supply a U.S.-based client with at least nine shipments of BioOil in 2010. If Dynamotive's BioOil is used as heating oil or upgraded to transportation fuel, it could potentially count towards meeting the cellulosic biofuel standard in 2010.

As for the Range Fuels plant, construction of phase one in Soperton, GA is about 85% complete, with start-up planned for mid-2010. However, there have been some changes to the scope of the project that will limit the amount of cellulosic biofuel that can be produced in 2010. The initial capacity has been reduced from 10 to 4 million gallons per year. In addition, since they plan to start up the plant using a methanol catalyst they are not expected to produce qualifying renewable fuel in 2010. During phase two of their project, currently slated for mid-2012, Range plans to expand production at the Soperton plant and transition from a methanol to a mixed alcohol catalyst. This will allow for a greater alcohol production potential as well as a greater cellulosic biofuel production potential.[86]

Overall, our most recent industry assessment suggests that there could potentially be over 30 MGY of cellulosic biofuel production capacity online by the end of 2010.[87] However, since most of the plants are still under construction today, the amount of cellulosic biofuel produced in 2010 will be contingent upon when and if these plants come online and whether the projects get delayed due to funding or other reasons. In addition, based on our discussions with the developing industry, it is clear that we cannot count on demonstration plants to produce at or near capacity in 2010, or in their first few years of operation for that matter. The amount of cellulosic biofuel actually realized will depend on whether the process works, the efficiency of the process, and how regularly the plant is run. As mentioned earlier, most small plants, including commercial demonstration plants, are not operated continuously. As such, we cannot base the standard on these plants running at capacity—at least until the industry develops further and proves that such rates are achievable. We currently estimate that production from first-of-its kind plants could be somewhere in the 25–50% range in 2010. Together, the implementation timelines and anticipated production levels of the plants described above brings the cellulosic biofuel supply estimate to somewhere in the 6–13 million gallon range for 2010.

In addition, it is unclear how much we can rely on Canadian plants for

[80] Based on a December 16, 2009 telephone conversation with DDCE Director of Corporate Communications, Jennifer Hutchins and follow-up e-mail correspondence.

[81] Refer to December 4, 2009 DOE press release entitled, "Recovery Act Announcement: Secretaries Chu and Vilsack Announce More Than $600 Million Investment in Advanced Biorefinery Projects."

[82] Based on an October 14, 2009 meeting with Enerkem and follow-up telephone conversation with VP of Government Affairs, Marie-Helene Labrie on December 14, 2009.

[83] Based on a December 15, 2009 telephone conversation with Fiberight CEO, Craig Stuart-Paul and follow-up e-mail correspondence.

[84] Based on a November 9, 2009 telephone conversation with Cello Energy CEO, Jack Boykin.

[85] According to Dynamotive's Web site, the Guelph plant has a capacity to convert 200 tonnes of biomass into BioOil per day. If all modules are fully operational, the plant has the ability to process 66,000 dry tons of biomass per year with an energy output equivalent to 130,000 barrels of oil. The West Lorne plant has a capacity to convert 130 tonnes of biomass into BioOil per day which, if proportional to the Guelph plant, translates to an energy-equivalent of 84,500 barrels of oil. According to a November 3, 2009 press release, Dynamotive has contracts in place to supply a U.S.-based client with at least nine shipments of BioOil in 2010.

[86] Based on a November 5, 2009 telephone conversation with Range Fuels VP of Government Affairs, Bill Schafer.

[87] For more information, refer to Section 1.5.3.2 of the RIA.

cellulosic biofuel in 2010. Although we currently receive some conventional biofuel imports from Canada and many of the aforementioned Canadian companies have U.S. markets in mind, the country also has its own renewable fuel initiatives that could keep much of the cellulosic biofuel produced from coming to the United States, e.g., Iogen. Finally, it's unclear whether all fuel produced by these facilities will qualify as cellulosic biofuel under the RFS2 program. Several of the companies are producing fuels or using feedstocks which may not in fact qualify as cellulosic biofuel once we receive their detailed registration information. Factoring in these considerations, the cellulosic biofuel potential from the six more likely companies described above could result in several different production scenarios in the neighborhood of the recent EIA estimate. We believe this estimate of 5 million gallons or 6.5 ethanol-equivalent million gallons represents a reasonable yet achievable level for the cellulosic biofuel standard in 2010 considering the degree of uncertainty involved with setting the standard for the first year. As mentioned earlier, we believe standard setting will be easier in future years once the industry matures, we start receiving production outlook reports and there is less uncertainty regarding feasibility of cellulosic biofuel production.

c. Current Production Outlook for 2011 and Beyond

Since the proposal, we have also learned about a number of other cellulosic biofuel projects in addition to those described above. This includes commercial U.S. production plans by Coskata, Enerkem and Vercipia. However, production isn't slated to begin until 2011 or later and the same is true for most of the other larger plants we're aware of that are currently under development. Nonetheless, while cellulosic biofuel production in 2010 may be limited, it is remarkable how much progress the industry has made in such a short time, and there is a tremendous growth opportunity for cellulosic biofuels over the next several years.

Most of the cellulosic biofuel companies we've talked to are in different stages of proving their technologies. Regardless of where they are at, many have fallen behind their original commercialization schedules. As with any new technology, there have been delays associated with scaling up capacity, i.e., bugs to work out going from pilot to demonstration to commercialization. However, most are saying it's not the technologies that are delaying commercialization, it is lack of available funding. Obtaining capital has been very challenging given the current recession and the banking sector's financial difficulties. This is especially true for start-up companies that do not have access to capital through existing investors, plant profits, etc. From what we understand, banks are looking for cellulosic companies to be able to show that their plants are easily "scalable" or expandable to commercial size. Many are only considering companies that have built plants to one-tenth of commercial scale and have logged many hours of continuous operation.

The government is currently trying to help in this area. To date, the Department of Energy (DOE) and the Department of Agriculture (USDA) have allocated over $720 million in federal funding to help build pilot and demonstration-scale biorefineries employing advanced technologies in the United States. The largest installment from Recovery Act funding was recently announced on December 4, 2009 and includes funding for a series of larger commercial demonstration plants including cellulosic ethanol projects by Enerkem and INEOS New Planet BioEnergy, LLC. DOE has also issued grants to help fund some of the first commercial cellulosic biofuel plants. Current recipients include Abengoa Bioenergy, BlueFire Ethanol [88] and POET Biorefining in addition to Range Fuels. DOE and USDA are also issuing loan guarantees to help support the up-and-coming cellulosic biofuels industry and funding research and development. Many states are also providing assistance. For more information on government support for biofuels, refer to Section 1.5.3.3 of the RIA.

The refining industry is also helping to fund cellulosic biofuel R&D efforts and some of the first commercial plants. Many of the major oil companies have invested in advanced second-generation biofuels over the past 12–18 months. A few refiners (e.g., BP and Shell) have even entered into joint ventures to become cellulosic biofuel producers. General Motors and other vehicle/engine manufacturers are also providing financial support to help with research and development.

A summary of some of the cellulosic biofuel companies with near-term commercialization plans in North America is provided in Table IV.B.3–2. The capacities presented represent maximum annual average throughput based on each company's current production plans. However, as noted, capacity does not necessarily translate to production. Actual production of cellulosic biofuel will likely be well below capacity, especially in the early years of production. We will continue to track these companies and the cellulosic biofuel industry as a whole throughout the duration of the RFS2 program. In addition, we will continue to collaborate with EIA in annual standard setting. A more detailed discussion of the plants corresponding to these company estimates is provided in Section 1.5.3 of the RIA.

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[88] Although BlueFire is still working on obtaining financing to build its first demonstration plant, it has received two installments of federal funding towards its first planned commercial-scale plant. The 19 MGY plant planned for Fulton, MS (originally planned for Southern California) was awarded $40 million from DOE on February 28, 2008 and another $81.1 million from DOE and USDA on December 4, 2009.

Table IV.B.3-2

Potential Growth in Cellulosic Biofuel Capacity by Company and Year*

Cellulosic Company	Biofuel(s)	Capacity Expansion Plans (MGY)					
		Today	Dec-10	Dec-11	Dec-12	Dec-13	2014+
Abengoa	Ethanol	0.02	0.02	0.02	16.02	16.02	16.02
AE Biofuels	Ethanol	0.15	0.15	15.15	20.15	20.15	20.15
BlueFire Ethanol	Ethanol	-	-	-	-	-	22.90
Cello Energy	Diesel	-	20.00	20.00	20.00	20.00	120.00
CMEC / SunOpta	Ethanol	-	-	-	-	-	10.00
Coskata	Ethanol	0.04	0.04	0.04	50.04	50.04	100.04
Dynamotive[a]	BioOil	9.00	9.00	9.00	9.00	9.00	9.00
Enerkem	Ethanol	-	1.30	11.30	21.30	21.30	41.30
Fiberight	Ethanol	-	2.00	6.50	6.50	6.50	6.50
Flambeau River Biofuels	Diesel	-	-	-	8.00	8.00	8.00
Fulcrum Bioenergy	Ethanol	-	-	-	10.50	10.50	10.50
Inbicon / Great River Energy	Ethanol	-	-	-	-	20.00	20.00
INEOS Bio / New Planet Energy	Ethanol	-	-	8.00	8.00	8.00	8.00
Iogen	Ethanol	0.50	0.50	0.50	23.50	23.50	23.50
KL Energy	Ethanol	1.50	1.50	1.50	1.50	1.50	6.50
Mascoma Corporation	Ethanol	0.20	0.20	0.20	2.20	20.20	80.20
New Page	Diesel	-	-	-	2.50	2.50	2.50
Ohio River Clean Fuels / Baardb	Diesel, Naphtha	-	-	-	-	-	17.00
Pacific Ethanol	Ethanol	-	-	-	-	-	2.70
POET Biorefining	Ethanol	0.02	0.02	25.02	25.02	25.02	25.02
Range Fuels	Methanol, Ethanol	-	4.00	4.00	30.00	30.00	100.00
Rentech[c]	Diesel	-	-	0.15	7.15	7.15	7.15
Vercipia (Verenium/BP JV)	Ethanol	1.40	1.40	1.40	37.40	37.40	37.40
Maximum Plant Capacity (MGY)		**12.83**	**40.13**	**102.78**	**298.78**	**336.78**	**694.38**

[a]Capacity has been estimated.

[b]Plant will co-process biomass and coal. It is unclear at this time how much fuel would come from biomass and potentially qualify as cellulosic biofuel.

[c]Includes Clearfuels demo plant and Silvagas commercial plant.

*Capacity, not actual production

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d. Feedstock Availability

A wide variety of feedstocks can be used for cellulosic biofuel production, including: Agricultural residues, forestry biomass, certain renewable portions of municipal solid waste and construction and demolition waste (*i.e.,* separated food, yard and incidental, and post-recycled paper and wood waste as discussed in Section II.B.4) and energy crops. These feedstocks are currently much more difficult to convert into biofuel than traditional corn/starch crops or at least require new and different processes because of the more complex structure of cellulosic material.

To determine the likely cellulosic feedstocks for production of 16 billion gallons cellulosic biofuel by 2022, we analyzed the data and results from various sources. Sources include agricultural modeling from the Forestry Agriculture Sector Optimization Model (FASOM) to determine the most economical volume of agriculture residues, energy crops, and forestry resources (*see* Section VIII for more details on the FASOM) used to meet the standard. We supplemented these estimates with feedstock assessment estimates for the biomass portions of municipal solid waste and construction and demolition waste.[89]

The following subsections describe the availability of various cellulosic feedstocks and the estimated amounts from each feedstock needed to meet the EISA requirement of 16 Bgal of

[89] It is important to note that our original plant siting analysis for cellulosic ethanol facilities used the most current version of outputs from FASOM at the time, which was from April 2008. The siting analysis was used to inform the air quality modeling, which requires long leadtimes. Since then, FASOM has been updated to reflect better assumptions. Therefore, the version used for the FRM in Section VIII on economic impacts is different from the one used for the plant siting analysis in the NPRM. We do not believe that the differences between the two versions are enough to have a major impact on the plant siting analysis.

cellulosic biofuel by 2022. Refer to Section IV.B.2.c.iv for the summarized results of the types and volumes of cellulosic feedstocks chosen based on our analyses.

i. Urban Waste

Cellulosic feedstocks available at the lowest cost to the ethanol producer will likely be chosen first. This suggests that urban waste which is already being gathered today and incurs a fee for its disposal may be among the first to be used. Urban wastes are used in a variety of ways. Most commonly, wastes are ground into mulch, dumped into land-fills, or incinerated. We describe two components of urban waste, municipal solid waste (MSW) and construction and demolition (C&D) debris, below.

MSW consists of paper, glass, metals, plastics, wood, yard trimmings, food scraps, rubber, leather, textiles, etc. The portion of MSW that can qualify as renewable biomass under the program is discussed in Section II.B.4.d. The bulk of the biogenic portion of MSW that can be converted into biofuel is cellulosic material such as wood, yard trimmings, paper, and much of food wastes. Paper made up approximately 31% of the total MSW generated in 2008.[90] Although recycling/recovery rates are increasing over time, there appears to still be a large fraction of biogenic material that ends up unused and in land-fills. C&D debris is typically not available in wood waste assessments, although some have estimated this feedstock based on population. Utilization of such feedstocks could help generate energy or biofuels for transportation. However, despite various assessments on urban waste resources, there is still a general lack of reliable data on delivered prices, issues of quality (potential for contamination), and lack of understanding of potential competition with other alternative uses (e.g., recycling, burning for electricity).

We estimated that a total of 44.5 million dry tons of MSW (wood, yard trimmings, paper, and food waste) and C&D wood waste could be available for producing biofuels after factoring in several assumptions, e.g., percent contamination, percent recovered or combusted for other uses, and percent moisture.[91] [92] Between the proposal and this final rule, we have updated the assumptions noted above based on newer reports. It should be noted, however, that our estimates of urban waste availability have not changed significantly between the proposal and the final rule. We assumed that approximately 26 million dry tons (of the total 44.5 million dry tons) could be used to produce biofuels. However, many areas of the U.S. (e.g., much of the Rocky Mountains) have such sparse resources that an MSW and C&D cellulosic facility would not likely be justifiable. We did assume that in areas with other cellulosic feedstocks (forest and agricultural residue), that the MSW would be used even if the MSW could not justify the installation of a plant on its own. Therefore, we have estimated that urban waste could help contribute to the production of approximately 2.3 ethanol-equivalent billion gallons of fuel.[93] Note that some processes are likely to also process other portions of MSW (e.g., plastics, rubbers) into fuel, but we have only accounted for the portion expected to qualify as renewable fuel and produce RINs.

In addition to MSW and C&D waste generated from normal day-to-day activities, there is also potential for renewable biomass to be generated from natural disasters. This includes diseased trees, other woody debris, and C&D debris. For instance, Hurricane Katrina was estimated to have damaged approximately 320 million large trees.[94] Katrina also generated over 100 million tons of residential debris, not including the commercial sector. Much of this waste would likely be disposed of and therefore go unused. Collection of this material for the generation of biofuel could be a better alternative use for this waste. While we acknowledge this material could provide a large source in the short-term, natural disasters are highly variable, making it hard to predict amounts of material available in the future. Thus, for our analyses we have not included natural disaster renewable biomass in our estimates.

ii. Agricultural and Forestry Residues

The next category of feedstocks chosen will likely be those that are readily produced but have not yet been commercially collected. This includes both agricultural and forestry residues.

Agricultural residues are expected to play an important role early on in the development of the cellulosic ethanol industry due to the fact that they are already being grown. Agricultural crop residues are biomass that remains in the field after the harvest of agricultural crops. The most common residues are corn stover (the stalks, leaves, and/or cobs) and straw from wheat, rice, barley, and oats. These U.S. crops and others produce more than 500 million tons of residues each year, although only a fraction can be used for fuel and/or energy production due to sustainability and conservation constraints.[95] Crop residues can be found all over the United States, but are primarily concentrated in the Midwest since corn stover accounts for half of all available agricultural residues.

Agricultural residues play an important role in maintaining and improving soil quality, protecting the soil surface from water and wind erosion, helping to maintain nutrient levels, and protecting water quality. Thus, collection and removal of agricultural residues raise concerns about the potential for increased erosion, reduced crop productivity, depletion of soil carbon and nutrients, and water pollution. Sustainable removal rates for agricultural residues have been estimated in various studies, many showing tremendous variability due to local differences in soil and erosion conditions, soil type, landscape (slope), tillage practices, crop rotation managements, and the use of cover crops. One of the most recent studies by top experts in the field shows that under current rotation and tillage practices, about 30% of corn stover (about 59 million metric tons) produced in the U.S. could be collected, taking into consideration erosion, soil moisture concerns, and nutrient replacement costs.[96] The same study shows that if farmers convert to no-till corn management and total stover production does not change, then approximately 50% of stover (100 million metric tons) could be collected without causing erosion to exceed the tolerable soil loss. This study, however, did not consider possible soil carbon loss which other studies indicate may be a greater constraint to environmentally sustainable feedstock harvest than that needed to control water and wind

[90] EPA. Municipal Solid Waste Generation, Recycling, and Disposal in the United States: Facts and figures for 2008.

[91] Wiltsee, G., "Urban Wood Waste Resource Assessment," NREL/SR–570–25918, National Renewable Energy Laboratory, November 1998.

[92] Biocycle, "The State of Garbage in America," Vol. 49, No. 12, December 2008, p. 22.

[93] Assuming 90 gal/dry ton ethanol conversion yield for urban waste in 2022.

[94] Chambers, J., "Hurricane Katrina's Carbon Footprint on U.S. Gulf Coast Forests" *Science* Vol. 318, 2007.

[95] Elbehri, Aziz. USDA, ERS. "An Evaluation of the Economics of Biomass Feedstocks: A Synthesis of the Literature. Prepared for the Biomass Research and Development Board," 2007; Since 2007, a final report has been released. Biomass Research and Development Board., "The Economics of Biomass Feedstocks in the United States: A Review of the Literature," October 2008.

[96] Graham, R.L., "Current and Potential U.S. Corn Stover Supplies," *American Society of Agronomy* 99:1–11, 2007.

erosion.[97] Experts agree that additional studies are needed to further evaluate how soil carbon and other factors affect sustainable removal rates. Despite unclear guidelines for sustainable removal rates due to the uncertainties explained above, our agricultural modeling analysis assumes that no stover is removable on conventional tilled lands, 35% of stover is removable on conservation tilled lands, and 50% is removable on no-till lands. In general, these removal guidelines are appropriate only for the Midwest, where the majority of corn is currently grown.

As already noted, removal rates will vary by region due to local differences. Given the current understanding of sustainable removal rates, we believe that such assumptions are reasonably justified. Based on our research, we also note that calculating residue maintenance requirements for the amount of biomass that must remain on the land to ensure soil quality is another approach for modeling sustainable residue collection quantities. This approach would likely be more accurate for all landscapes as site-specific conditions such as soil type, topography, etc. could be taken into account. This would prevent site-specific soil erosion and soil quality concerns that would inevitably exist when using average values for residue removal rates across all soils and landscapes. At the time of our analyses, however, we had limited data on which to accurately apply this approach and therefore assumed the removal guidelines based on tillage practices.

Our agricultural modeling (FASOM) suggests that corn stover will make up the majority of agricultural residues used by 2022 to meet the EISA cellulosic biofuel standard (4.9 ethanol-equivalent Bgal).[98] Smaller contributions are expected to come from other crop residues including sugarcane bagasse (0.6 ethanol-equivalent Bgal), wheat residues (0.1 ethanol-equivalent Bgal), and sweet sorghum pulp (0.1 ethanol-equivalent Bgal).[99]

The U.S. also has vast amounts of forest resources that could potentially provide feedstock for the production of cellulosic biofuel. One of the major sources of woody biomass could come from logging residues. The U.S. timber industry harvests over 235 million dry tons annually and produces large volumes of non-merchantable wood and residues during the process.[100] Logging residues are produced in conventional harvest operations, forest management activities, and clearing operations. In 2004, these operations generated approximately 67 million dry tons of forest residues that were left uncollected at harvest sites.[101] Other feedstocks include those from other removal residues, thinnings from timberland, and primary mill residues.

For the NPRM, FASOM was not able to model forestry biomass as a potential feedstock. As a result, we relied on USDA-Forest Service (FS) for information on the forestry sector at the time. For the final rule, we were able to incorporate the forestry sector model in FASOM. EISA does not allow forestry material from national forests and virgin forests that could be used to produce biofuels to count towards the renewable fuels requirement under EISA. Therefore, our modeling of forestry biomass excluded such material. The FASOM model estimated that approximately 0.1 ethanol-equivalent billion gallons would be produced from forestry biomass to meet EISA.

iii. Dedicated Energy Crops

While urban waste, agricultural residues and forest residues will likely be the first feedstocks used in the production of cellulosic biofuel, there may be limitations to their use due to land availability and sustainable removal rates. Energy crops which are not yet grown commercially but have the potential for high yields and a series of environmental benefits could help provide additional feedstocks in the future. Dedicated energy crops are plant species grown specifically for energy purposes. Various perennial plants have been researched as potential dedicated feedstocks, including switchgrass, mixed prairie grasses, hybrid poplar, miscanthus, energy cane, energy sorghum, and willow trees. Refer to Section 1.1.2.2 of the RIA for more information on the benefits and challenges with using dedicated energy crops.

In addition to estimating the extent that agricultural residues might contribute to cellulosic ethanol production, FASOM also estimated the contribution that energy crops might provide (7.9 ethanol-equivalent Bgal).[102] FASOM covers all cropland and pastureland in production in the 48 contiguous United States. For the NPRM, FASOM did not contain all categories of grassland and rangeland captured in USDA's Major Land Use data sets. For the final rule, FASOM accounts for all major land categories, including forestland and rangeland. All crop production, including dedicated energy crops, takes place on cropland. Land categories that can be converted to cropland production include cropland pasture, forest pasture, and forestland. More detail can be found in Chapter VIII of this preamble. Furthermore, we constrained FASOM to be consistent with the 2008 Farm Bill and assumed 32 million acres would stay in Conservation Reserve Program (CRP).[103] Other models, such as USDA's Regional Environment and Agriculture Programming (REAP) model and University of Tennessee's POLYSYS model, have shown that the use of energy crops to meet EISA could be significant, similar to our FASOM modeling results for the final rule.[104]

iv. Summary of Cellulosic Feedstocks for 2022

Table IV.B.3–3 summarizes our internal estimate of the types of cellulosic feedstocks projected to be used and their corresponding volume contribution to 16 billion gallons cellulosic biofuel by 2022 for the purposes of our impacts assessment. The majority of feedstock is projected to come from dedicated energy crops. Other feedstocks include agricultural residues, forestry biomass, and urban waste.

[97] Wilhelm, W.W. *et al.,* "Corn Stover to Sustain Soil Organic Carbon Further Constrains Biomass Supply," *Agron. J.* 99:1665–1667, 2007.

[98] Assuming 92.3 gal/dry ton ethanol conversion yield for corn stover in 2022.

[99] Bagasse is a byproduct of sugarcane crushing and not technically an agricultural residue. Sweet sorghum pulp is also a byproduct of sweet sorghum processing. We have included it under this heading for simplification due to sugarcane and sorghum being an agricultural feedstock.

[100] Smith, W. Brad *et al.,* "Forest Resources of the United States, 2002 General Technical Report NC–241," St. Paul, MN: U.S. Dept. of Agriculture, Forest Service, North Central Research Station, 2004.

[101] USDA-Forest Service. "Timber Products Output Mapmaker Version 1.0." 2004.

[102] Assuming 16 Bgal cellulosic biofuel total, 2.3 Bgal from Urban Waste; 13.7 Bgal of cellulosic biofuel for ag residues, forestry biomass, and/or energy crops would be needed.

[103] Beside the economic incentive of a farmer payment to keep land in CRP, local environmental interests may also fight to maintain CRP land for wildlife preservation. Also, we did not know what portion of the CRP is wetlands which likely could not support harvesting equipment.

[104] Biomass Research and Development Initiative (BR&DI), "Increasing Feedstock Production for Biofuels: Economic Drivers, Environmental Implications, and the Role of Research," *http://www.brdisolutions.com,* December 2008.

TABLE IV.B.3–3—CELLULOSIC FEEDSTOCKS ASSUMED TO MEET EISA IN 2022 [105]

Feedstock	Volume (ethanol-equivalent Bgal)
Agricultural Residues	5.7
Corn Stover	4.9
Sugarcane Bagasse	0.6
Wheat Residue	0.1
Sweet Sorghum Pulp	0.1
Forestry Biomass	0.1
Urban Waste	2.3
Dedicated Energy Crops (Switchgrass)	7.9
Total	16.0

4. Biodiesel & Renewable Diesel

Biodiesel and renewable diesel are replacements for petroleum diesel that are made from plant or animal fats. Biodiesel consists of fatty acid methyl esters (FAME) and can be used in low-concentration blends in most types of diesel engines and other combustion equipment with no modifications. The term renewable diesel covers fuels made by hydrotreating plant or animal fats in processes similar to those used in refining petroleum. Renewable diesel is chemically analogous to blendstocks already used in petroleum diesel, thus its use can be transparent and its blend level essentially unlimited. The goal of both biodiesel and renewable diesel conversion processes is to change the properties of a variety of feedstocks to more closely match those of petroleum diesel (such as its density, viscosity, and storage stability) for which the engines have been designed. The definition of biodiesel given in applicable regulations is sufficiently broad to be inclusive of both fuels.[106] However, the EISA stipulates that renewable diesel that is co-processed with petroleum diesel cannot be counted as biomass-based diesel for purposes of complying with the RFS2 volume requirements.[107]

In general, plant and animal oils are valuable commodities with many uses other than transportation fuel. Therefore we expect the primary limiting factor in the supply of both biodiesel and renewable diesel to be feedstock availability and price. Expansion of their market volumes is dependent on being able to compete on price with the petroleum diesel they are displacing, which will depend largely on continuation of current subsidies and other incentives.

Other biomass-based diesel fuel processes are at various stages of development, but due to uncertainty on production timelines, we didn't include these fuels in the biomass-based diesel impact assessments.

a. Historic and Projected Production

i. Biodiesel

As of November 2009, the aggregate production capacity of biodiesel plants in the U.S. was estimated at 2.8 billion gallons per year across approximately 191 facilities.[108] (However, at the time of this writing it is anticipated that capacity utilization will be approximately 17% for calendar year 2009.) Biodiesel plants exist in nearly all states, with the largest density of plants in the Midwest and Southeast where agricultural feedstocks are most plentiful.

Table IV.B.4–1 gives data on U.S. biodiesel production and use for recent years, including net domestic use after accounting for imports and exports. The figures suggest that the industry has grown out of proportion with actual biodiesel demand. Reasons for this include various state incentives to build plants, along with state and federal incentives to blend biodiesel, which have given rise to an optimistic industry outlook over the past several years. Since the cost of capital is relatively low for the biodiesel production process (typically four to six percent of the total per-gallon cost), this industry developed along a path of more small, privately-owned plants in comparison to the ethanol industry, with median size less than 10 million gallons/yr.[109] These small plants, with relatively low costs other than feedstock, have generally been able to survive producing well below their nameplate capacities.

TABLE IV.B.4–1—SUMMARY OF U.S. BIODIESEL PRODUCTION AND USE

[Million gallons] [110]

Year	Domestic production capacity	Domestic total production	Apparent capacity utilization (percent)	Net domestic biodiesel use	Net domestic use as percent of production
2004	245	28	11	27	96
2005	395	91	23	91	100
2006	792	250	32	261	104
2007	1,809	490	27	358	73
2008	2,610	776	30	413	53
2009	2,806	475 (est.)	17	296 (est.)	62

Some of this industry capacity may not be dedicated specifically to fuel production, instead being used to make oleochemical feedstocks for further conversion into products such as surfactants, lubricants, and soaps. These products do not show up in renewable fuel sales figures.

During 2004–2006, demand for biodiesel grew rapidly, but the trend of increasing sales was quickly surpassed by construction and start-up of new plants Since then, periods of high commodity prices followed by reduced demand for transportation fuel during

[105] Volumes are represented here as ethanol-equivalent volumes, a mix of diesel and ethanol volumes as described in Section IV.A, above.

[106] *See* Section 1515 of the Energy Policy Act of 2005. More discussion of the definitions of biodiesel and renewable diesel are given in the preamble of the Renewable Fuel Standard rulemaking, Section II.B.2, as published in the **Federal Register** Vol. 72, No. 83, p. 23917.

[107] For more detailed discussion of the definition of coprocessing and its implications for compliance with EISA, *see* Section II.B.1 of this preamble.

[108] Capacity data taken from National Biodiesel Board as of November 2009.

[109] Assessment of plant capital cost based on USDA production cost models. A publication describing USDA modeling of biodiesel production costs can be found in Bioresource Technology 97(2006) 671–8.

[110] Capacity data taken from National Biodiesel Board as of November 2009. Production, import, and export figures taken from EIA Monthly Energy Review, Table 10.4 as of December 2009.

the economic downturn have caused additional strain on the industry beyond the overcapacity situation. Biodiesel producers were able to find additional markets overseas, and a significant portion of the 2007 and 2008 production was exported to Europe where fuel prices and additional tax subsidies helped offset high feedstock costs. However, the EU enacted a tariff to protect domestic producers early in 2009, after which exports dropped to a small fraction of production.[111] We understand there may be some additional export markets developing within North America, but given the uncertainty at this time, we do not account for any biodiesel exports in our projections.

To perform our impacts analyses for this rule, it was necessary to forecast the state of the biodiesel industry in the timeframe of the fully-phased-in RFS. In general, this consisted of reducing the industry capacity to be much closer to 1.67 billion gallons per year by 2022 (based on the volume requirements to meet the standard; *see* Section IV.A.2). This was accomplished by considering as screening factors the current production and sales incentives in each state as well as each plant's primary feedstock type and whether it was BQ–9000 certified.[112] Going forward producers will compete for feedstocks and markets may consolidate. During this period the number of operating plants is expected to shrink, with surviving plants utilizing feedstock segregation and pre-treatment capabilities, giving them flexibility to process any mix of feedstocks available in their area. By the end of this period we project a mix of large regional plants and some smaller plants taking advantage of local market niches, with an overall average capacity utilization around 85%. Table IV.B.4–2 summarizes this forecast. *See* Section 1.5.4 of the RIA for more details.

TABLE IV.B.4–2—SUMMARY OF PROJECTED BIODIESEL INDUSTRY CHARACTERIZATION USED IN OUR ANALYSES [113]

	2008	2022
Total production capacity on-line (million gal/yr)	2,610	1,968
Number of operating plants	176	121
Median plant size (million gal/yr)	5	5
Total biodiesel production (million gal)	776	1,670
Average plant utilization	0.30	0.85

ii. Renewable Diesel

Renewable diesel is a fuel (or blendstock) produced from animal fats, vegetable oils, and waste greases using chemical processes similar to those employed in petroleum hydrotreating. These processes remove oxygen and saturate olefins, converting the triglycerides and fatty acids into paraffins. Renewable diesel typically has higher cetane, lower nitrogen, and lower aromatics than petroleum diesel fuel, while also meeting stringent sulfur standards.

As a result of the oxygen and olefins in the feedstock being removed, renewable diesel has storage, stability, and shipping properties equivalent to petroleum diesel. This allows renewable diesel fuel to be shipped in existing petroleum pipelines used for transporting fuels, thus avoiding a significant issue with distribution of biodiesel. For more on fuel distribution, refer to Section IV.C.

Considering that this industry is still in development and that there are no long-term projections of production volume, we base our volume estimate of 150 MMgal/yr primarily on recent industry project announcements involving proven technology. Due to the current status of tax incentives, we project all of this fuel will be produced at stand-alone facilities.

b. Feedstock Availability

Publically available industry information along with agricultural commodity modeling we have done for this rule (*see* Section VIII.A) suggests that the three largest sources of feedstock for biodiesel will be rendered animal fats, soy oil, and corn oil extracted from dry mill ethanol facilities. Renewable diesel plants are expected to use solely animal fats due to the fact that these feedstocks are cheaper than vegetable oils and the process can handle them without issue. Comments we have received from a large rendering company suggest there will be adequate fats and greases feedstocks to supply biofuels as well as other historical uses. Table IV.B.4–3 summarizes the feedstock types, process types, and volumes projected to be used in 2022 for biodiesel and renewable diesel. More details on feedstock sources and volumes are presented in Section 1.1.3 of the RIA.

TABLE IV.B.4–3—SUMMARY OF PROJECTED BIODIESEL AND RENEWABLE DIESEL FEEDSTOCK USE IN 2022

[MMgal]

Feedstock type	Base catalyzed biodiesel	Acid-pretreatment biodiesel	Renewable diesel
Virgin vegetable oil	660		
Corn oil from ethanol production		680	
Rendered animal fats and greases		230	150
Algae oil or other advanced source	100		

[111] *Ibid.*

[112] Information on state incentives was taken from U.S. Department of Energy Web site, accessed July 30, 2008, at *http://www.eere.energy.gov/afdc/fuels/biodiesel_laws.html.* Information on feedstock and BQ–9000 status was taken from Biodiesel Board fact sheet, accessed July 30, 2008.

[113] 2008 capacity data taken from National Biodiesel Board; production figures taken from EIA Monthly Energy Review, Table 10.4 as of October 2009.

C. Biofuel Distribution

The current motor fuel distribution infrastructure has been optimized to facilitate the movement of petroleum-based fuels. Consequently, there are very efficient pipeline-terminal networks that move large volumes of petroleum-based fuels from production/import centers on the Gulf Coast and the Northeast into the heartland of the country. In contrast, most biofuel is produced in the heartland of the country and needs to be shipped to the coasts, flowing roughly in the opposite direction of petroleum-based fuels. In addition, while some renewable fuels such as hydrocarbons may be transparent to the distribution system, the physical/chemical nature of other renewable fuels may limit the extent to which they can be shipped/stored fungibly with petroleum-based fuels. The vast majority of biofuels are currently shipped by rail, barge and tank truck to petroleum terminals. All biofuels are currently blended with petroleum-based fuels prior to use.[114] Most biofuel blends can be used in conventional vehicles. However, E85 can only be used in flex-fuel vehicles, requires specially constructed retail dispensing/storage equipment, and may require special blendstocks at terminals. These factors limit the ability of biofuels to utilize the existing petroleum fuel distribution infrastructure. Hence, the distribution of renewable fuels raises unique concerns and in many instances requires the addition of new transportation, storage, blending, and retail equipment.

1. Biofuel Shipment to Petroleum Terminals

Ethanol currently is not commonly shipped by pipeline because it can cause stress corrosion cracking in pipeline walls and its affinity for water and solvency can result in product contamination concerns. A short gasoline pipeline in Florida is currently shipping batches of ethanol, and other more extensive pipeline systems have feasibility studies underway.[115] Thus, existing petroleum pipelines in some areas of the country may play an increasing role in the shipment of ethanol. Evaluations are also currently underway regarding the feasibility of constructing a new dedicated ethanol pipeline from the Midwest to the East coast. We expect that cellulosic distillate fuels will not have materials compatibility issues with the existing petroleum fuel distribution infrastructure. Thus, there may be more opportunity for cellulosic distillate fuel to be shipped by pipeline. However, the location of both ethanol and cellulosic distillate production facilities relative to the origination points for existing petroleum pipelines will be a limiting factor regarding the extent to which pipelines can be used.

Our analysis of the shipment of ethanol and cellulosic distillate fuels to petroleum terminals is based on the projections of the location of biofuel production facilities and end use areas contained in the NPRM. We assume that the majority of ethanol and cellulosic distillate fuel would be produced in the Midwest, and that both fuels would be shipped to petroleum terminals in a similar fashion (by rail, barge, and tank truck). To the extent which new biofuel production facilities are more dispersed than projected in the NPRM, there may be more opportunity for both fuels to be used closer to their point of manufacture. This potential benefit would primarily apply to cellulosic ethanol and distillate production facilities given that such facilities have yet to be constructed, whereas most corn-ethanol production facilities have already been constructed in the Midwest.

Biodiesel is currently not typically shipped by pipeline due to concerns that it may contaminate jet fuel that is shipped on the same pipeline and potential incompatibility with pipeline gaskets and seals. Kinder Morgan's Plantation pipeline is currently shipping B5 blends on segments of its system that do not handle jet fuel. The shipment of biodiesel by pipeline may become more widespread and might be expanded to systems that handle jet fuel. However, the relatively small production volumes from individual biodiesel plants and the widespread location of such production facilities will tend to limit the extent to which biodiesel may be shipped by pipeline.

Due to the uncertainties regarding the extent to which pipelines might participate in the transportation of biofuels in the future, we assumed that biofuels will continue to be transported by rail, barge, and truck to petroleum terminals as the vast majority of biofuel volumes are today. To the extent that pipelines do play an increasing role in the distribution of ethanol, this may improve reliability in supply and reduce distribution costs. Apart from increased shipment by pipeline, biofuel distribution, and in particular ethanol distribution can be further optimized primarily through the expanded use of unit trains.[116] We anticipate that the vast majority of ethanol and cellulosic distillate facilities will be sized to facilitate unit train service.[117] We do not expect that biodiesel facilities will be of sufficient size to justify shipment by unit train. In the NPRM, we projected that unit train receipt facilities would be located at petroleum terminals and existing rail terminals. Based on industry input regarding the logistical hurdles in locating unit train receipt facilities at petroleum/existing rail terminals, we expect that such facilities will be constructed on dedicated property with rail access that is as close to petroleum terminals as practicable.[118]

Shipment of biofuels by manifest rail to existing rail terminals will continue to be an important means of supplying biofuels to distant markets where the volume of the production facility and/or the local demand is not sufficient to justify shipment by unit train.[119] Shipments by barge will also play an important role in those instances where production and demand centers have water access and in some cases as the final link from a unit train receipt facility to a petroleum terminal. Direct shipment by tank truck from production facilities to petroleum terminals will also continue for shipment over distances shorter than 200 miles.

We project that most biofuel volumes shipped by rail will be delivered to petroleum terminals by tank truck.[120] We expect that this will always be the case for manifest rail shipments. In the NPRM, we projected that trans-loading of biofuels from rail cars to tank trucks would be an interim measure until biofuel storage tanks were constructed.[121] Based on industry input, we now expect trans-loading will be a long-term means of transferring manifest rail car shipments of biofuels received at

[114] The prescribed blending ratio for a given biofuel is based on vehicle compatibility and emissions considerations. Some biofuels may be found to be suitable for use without the need for blending with petroleum-based fuel.

[115] Shipment of ethanol in pipelines that carry distillate fuels as well as gasoline presents additional challenges.

[116] Unit trains are composed of 70 to 100 rail cars that are dedicated to shuttle back and forth from production facilities downstream receipt facilities near petroleum terminals.

[117] A facility exists in Iowa to consolidate rail cars of ethanol from some ethanol plants that are not large enough to support unit train service by themselves.

[118] Existing unit train receipt facilities have primarily followed this model.

[119] Manifest rail shipment refers to the shipment of rail cars of biofuels in trains that also carry other products.

[120] At least one current ethanol unit train receipt facility has a pipeline link to a nearby terminal. To the extent that additional unit train receipt facilities could accomplish the final link to petroleum terminals by pipeline, this would significantly reduce the need for shipment by tank truck.

[121] Trans-loading refers to the direct transfer of the contents of a rail car to a tank truck without the intervening delivery into a storage tank.

existing rail terminals to tank trucks for delivery to petroleum terminals. We also anticipate that trans-loading will be used at some unit train receipt facilities, although we expect that most of these facilities will install biofuel storage tanks from which tank trucks will be filled for delivery to petroleum terminals. Imported biofuels will typically be received and be further distributed by tank truck from petroleum terminals that already have receipt facilities for waterborne fuel shipments.

We anticipate that the deployment of the necessary distribution infrastructure to accommodate the shipment of biofuels to petroleum terminals is achievable.[122] We believe that construction of the requisite rail cars, barges, tank trucks, tank truck and rail/barge/truck receipt facilities is within the reach of corresponding construction firms.[123] Although shipment of biofuels by rail represents a major fraction of all biofuel ton-miles, it is projected to account for approximately 0.4% of all rail freight by 2022. Many improvements to the freight rail system will be required in the next 15 years to keep pace with the large increase in the overall freight demand. Given the broad importance to the U.S. economy of meeting the anticipated increase in freight rail demand, and the substantial resources that seem likely to be focused on this cause, we believe that overall freight rail capacity would not be a limiting factor to the successful implementation of the biofuel requirements under EISA.

2. Petroleum Terminal Accommodations

Terminals will need to install additional storage capacity to accommodate the volume of biofuels that we anticipate will be used in response to the RFS2 standards. Petroleum terminals will also need to install truck receipt facilities for biofuels and equipment to blend biofuels into petroleum-based fuels. Upgrades to barge receipt facilities to handle deliveries of biofuels may also be needed at petroleum terminals with water access. Biodiesel storage and blending facilities will need to be insulated/heated in cold climates to prevent biodiesel from gelling.[124] Questions have been raised about the ability of some terminals to install the needed storage capacity due to space constraints and difficulties in securing permits.[125] Overall demand for fuel used in motor vehicles is expected to remain relatively constant through 2022. Thus, much of the increased demand for biofuel storage could be accommodated by modifying storage tanks previously used for the gasoline and petroleum-based diesel fuels that would displaced by biofuels. The areas served by existing terminals also often overlap. In such cases, one terminal might be space constrained while another serving the same area may be able to install the additional capacity to meet the increase in demand. In cases where it is impossible for existing terminals to expand their storage capacity due to a lack of adjacent available land or difficulties in securing the necessary permits, new satellite storage or new separate terminal facilities may be needed for additional storage of biofuels. However, we believe that there would be few such situations.

In the NPRM, we stated the current EPA policy that the RFG and anti-dumping regulations currently require certified gasoline to be blended with denatured ethanol to produce E85. We also stated that if terminal operators add blendstocks to finished gasoline for use in manufacturing E85, the terminal operator would need to register as a refiner with EPA and meet all applicable standards for refiners. Commenters questioned these statements. As we are not taking any action in this final rule with respect to policies surrounding E85, we will consider these comments outside the context of this rule.

3. Potential Need for Special Blendstocks at Petroleum Terminals for E85

ASTM International is considering a proposal to lower the minimum ethanol concentration in E85 to facilitate meeting ASTM minimum volatility specifications in cold climates and when only low vapor pressure gasoline is available at terminals.[126] Commenters have stated that the current proposal to lower the minimum ethanol concentration to 68 volume percent may not be sufficient for this purpose. ASTM International may consider an additional proposal to further decrease the minimum ethanol concentration. Absent such an adjustment, a high-vapor pressure petroleum-based blendstock such as butane would need to be supplied to most petroleum terminals to produce E85 that meets minimum volatility specifications. In such a case, butane would need to be transported by tank truck from petroleum refineries to terminals and storage and blending equipment would be needed at petroleum terminals.[127]

Instead of lowering the minimum ethanol concentration of E85, some stakeholders are discussing establishing a new high-ethanol blend for use in flex-fuel vehicles. Such a fuel would have a minimum ethanol concentration that would be sufficient to allow minimum volatility specifications to be satisfied while using finished gasoline that is already available at petroleum terminals.[128] E85 would continue to be marketed in addition to this new fuel for use in flex-fuel vehicles when E85 minimum volatility considerations could be satisfied.

We believe that industry will resolve the concerns over the ability to meet the minimum volatility needed for high-ethanol blends used in flex-fuel vehicles in a manner that will not necessitate the use of high-vapor pressure blendstocks in their manufacture. Nevertheless, petroleum terminals may find it advantageous to blend butane into E85 because of the low cost of butane relative to gasoline provided that the cost benefit outweighs the associated butane distribution costs.[129]

4. Need for Additional E85 Retail Facilities

The number of additional E85 retail facilities needed to consume the volume of ethanol used under EISA varies substantially depending on the control case. Under our primary mid-ethanol scenario, we estimate that by 2022 an additional 19,765 E85 retail facilities would be needed relative to the AEO reference case to enable the consumption of the ethanol that we project would be used in E85.[130] Under

[122] *See* Section 1.6 of the RIA for additional discussion of the challenges in distributing biofuels from the production/import facility to the end user.

[123] Vessels that transport biodiesel will need to be heated/insulated in cold climates to prevent gelling.

[124] Some terminals are avoiding the need for heated/insulated biodiesel facilities by storing high biodiesel blends (*e.g.* B50) for blending with petroleum-based diesel fuel.

[125] The Independent Fuel Terminal Operators Association represents terminals in the Northeast.

[126] Minimum volatility specifications were established by ASTM to address safety and vehicle driveability considerations.

[127] *See* Section 1.6 of the RIA for a discussion of the potential distribution of butane to petroleum terminals for blending with E85 and Section 4.2 for the potential costs.

[128] Such a new fuel might have a lower ethanol concentration of 60% and a maximum ethanol concentration of 85%.

[129] EPA may consider reevaluating its policies regarding the blendstocks used in the manufacture of E85 to facilitate this practice.

[130] *See* Section 1.6 of the RIA for a discussion of the projected number of E85 refueling facilities that would be needed. There would need to be a total of 24,265 E85 retail facilities under the primary scenario, 4,500 of which are projected to have been placed in service absent the RFS2 standards under the AEO reference case. Our analysis assumes the installation of new dispensers and underground storage tank (UST) systems for E85. EPA's Office of Underground Storage Tanks requires that UST

the high-ethanol scenario, we estimate that an additional 23,809 E85 facilities would be needed and that 4,500 E85 facilities that would otherwise be in place would need to be upgraded to include more E85 dispensers by 2022. Whereas under the low-ethanol volume scenario, we project that 11,677 additional E85 facilities would be needed by 2022.

On average, approximately 1,520 additional E85 facilities will be needed each year from 2010 through 2022 under our primary scenario. Under the high and low ethanol scenarios, an additional 1,820 and 900 E85 retail facilities per year respectively would be needed. Under the high ethanol case and to a lesser extent under the primary case, this represents an aggressive timeline for the addition of new E85 facilities given that there are approximately 2,000 E85 retail facilities in service today. Nevertheless, we believe the addition of these new E85 facilities may be possible for the industries that manufacture and install E85 retail equipment. Underwriters Laboratories requires that E85 refueling dispenser systems must be certified as complete units.[131] To date, no complete E85 dispenser systems have been certified by UL. We understand that all the fuel dispenser components with the exception of the hoses that connect to the refueling nozzle have successfully passed the necessary testing. There does not appear to be a technical difficulty in finding hoses that can pass the required testing. Therefore, we anticipate this situation will be resolved once the demand for new E85 facilities is demonstrated. Hence, we believe that the current lack of a UL certification for complete E85 dispenser systems will not impede the installation of the additional E85 facilities that we projected will be needed.

Petroleum retailers expressed concerns about their ability to bear the cost installing the needed E85 refueling equipment given that most retailers are small businesses and have limited capital resources. They also expressed concern regarding their ability to discount the price of E85 relative to E10 sufficiently to persuade flexible fuel vehicle owners to choose E85 given the lower energy density of ethanol. Today's rule does not contain a requirement for retailers to carry E85. We understand that retailers will only install E85 facilities if they can be assured of sufficient E85 throughput to recover their capital costs. The current projections regarding the future cost of gasoline relative to ethanol indicate that it may be possible to price E85 in a competitive fashion to E10. Thus, demand for E85 may be sufficient to encourage retailers to install the needed E85 refueling facilities.

D. Ethanol Consumption

1. Historic/Current Ethanol Consumption

Ethanol and ethanol-gasoline blends have a long history as automotive fuels. In fact, the well-known Model-T was capable of running on both ethanol and gasoline.[132] However, inexpensive crude oil prices kept ethanol from making a significant presence in the transportation sector until the end of the 20th century. Over the past decade, ethanol use has grown rapidly due to oxygenated fuel requirements, MTBE bans, tax incentives, state mandates, the first federal renewable fuels standard ("RFS1"), and rising crude oil prices. Although the cost of crude has come down since reaching record levels in 2008, uncertainty surrounding pricing and the environmental implications of fossil fuels continue to drive ethanol use.

A record 9.5 billion gallons of ethanol were blended into U.S. gasoline in 2008 and EIA is forecasting additional growth in the years to come.[133] According to their recently released Short-Term Energy Outlook (STEO), EIA is forecasting 0.7 million barrels of daily ethanol use in 2009, which equates to 10.7 billion gallons. The October 2009 STEO projects that total ethanol usage (domestic production plus imports) will reach 12.1 billion gallons by 2010.[134]

The National Petrochemical and Refiners Association (NPRA) estimates that ethanol is currently blended into about 75 percent of all gasoline sold in the United States.[135] The vast majority is blended as E10 or 10 volume percent ethanol, although a small amount is blended as E85 for use in flexible fuel vehicles (FFVs).

Complete saturation of the gasoline market with E10 is referred to as the ethanol "blend wall." The height of the blend wall in any given year is directly related to gasoline demand. In AEO 2009, EIA projects that gasoline demand will peak around 2013 and then start to taper off due to vehicle fuel economy improvements. Based on the primary ethanol growth scenario we're forecasting under today's RFS2 program, the nation is expected to hit the 14–15 billion gallon blend wall by around 2014 (refer ahead to Figure IV.D.2–1), although it could be sooner if gasoline demand is lower than expected. It could also be lower if projected volumes of non-ethanol renewables do not materialize and ethanol usage is higher than expected.

Over the years there have been several policy attempts to increase FFV sales including Corporate Average Fuel Economy (CAFE) credits and government fleet alternative-fuel vehicle requirements. As a result, there are an estimated 8 million FFVs on the road today, up from just over 7 million in 2008. While this is not insignificant in terms of growth, FFVs continue to make up less than 4 percent of the total gasoline vehicle fleet. In addition, E85 is only currently offered at about 1 percent of gas stations nationwide. Ethanol consumption is currently limited by the number of FFVs on the road and the number of E85 outlets or, more specifically, the number of FFVs with access to E85. Still many FFV owners with access to E85 are not choosing it because it is currently priced almost 40 cents per gallon higher than conventional gasoline on an energy equivalent basis.[136] According to EIA, only 12 million gallons of E85 were consumed in 2008.[137]

To meet today's RFS2 requirements we are going to need to see growth in FFV and E85 infrastructure as well as changes in retail pricing and consumer behavior. However, the amount of change needed is proportional to the amount of ethanol observed under the RFS2 program. As explained in Section IV.A, EPA expects total ethanol demand could be anywhere from 17.5 to 33.2 billion gallons in 2022, depending on the amount of non-ethanol cellulosic biofuels that are realized. The low-ethanol case would require only moderate changes in FFV/E85 infrastructure and refueling whereas the high-ethanol case would require very dramatic changes and likely a mandate. For the final rule, we have chosen to focus our impact analyses on the primary mid-ethanol case of 22.2 billion gallons. A discussion of how this

systems must be compatible with the fuel stored. Authorities who Have Jurisdiction (such as local fire marshals) typically require that fuel dispensers be listed by an organization such as Underwriters Laboratories.

[131] *See http://ulstandardsinfonet.ul.com/outscope/0087A.html.*

[132] The Model T was also capable of running on kerosene.

[133] EIA, Monthly Energy Review, September 2009 (Table 10.2b).

[134] Letter from Richard Newell, EIA Administrator to Lisa Jackson, EPA Administrator dated October 29, 2009 (Table 1).

[135] Based on comments provided by NPRA (EPA–HQ–OAR–2005–0161–2124.1).

[136] Based on average E85 and regular unleaded gasoline prices reported at *http://www.fuelgaugereport.com/on* November 23, 2009.

[137] EIA, Annual Energy Outlook 2009—ARRA Update (Table 2).

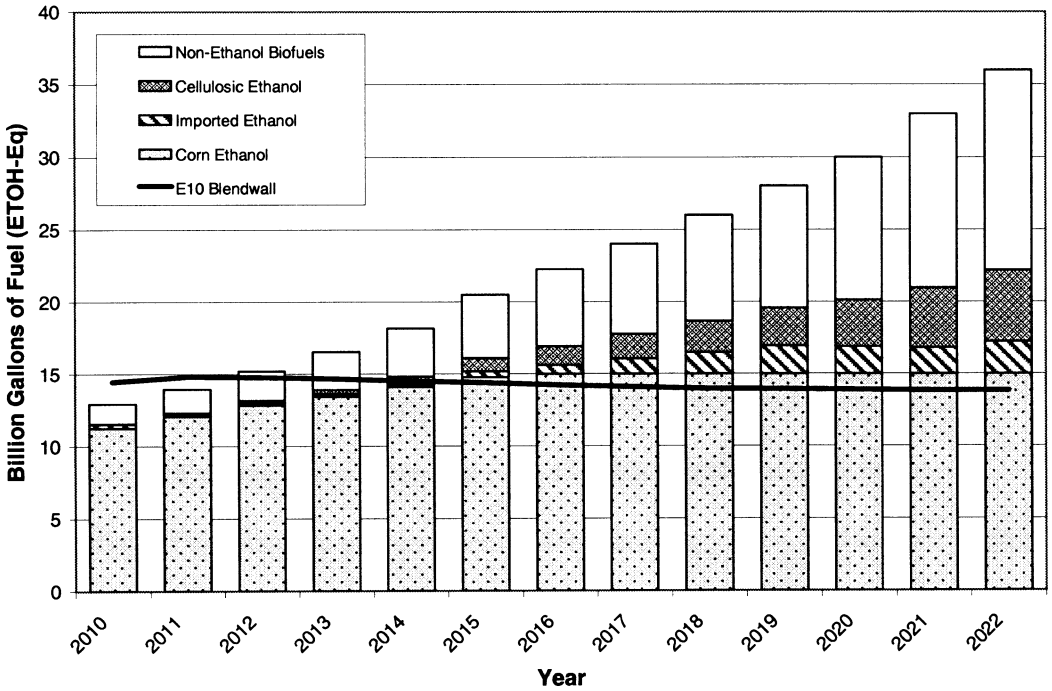
volume of ethanol could be consumed in 2022 with expanded FFV/E85 infrastructure is presented below. As expected, the infrastructure changes required under this FRM scenario are less extreme than those highlighted in the proposal based on a predominant ethanol world (34.2 billion gallons of ethanol). However, there are additional technological, logistical and financial barriers that will need to be overcome with respect to commercialization of BTL and non-ethanol cellulosic biofuels. For more on cellulosic diesel technologies, distribution impacts, and production costs, refer to Sections 1.4, 1.6 and 4.1 of the RIA.

2. Increased Ethanol Use Under RFS2

Under the primary ethanol growth scenario considered as part of today's rule, ethanol consumption will need to be about three times higher than RFS1 levels, more than twice as much as today's levels, and 9 billion gallons higher than the ethanol predicted to occur in 2022 absent RFS2 (according to AEO 2007). To get to 22.2 billion gallons of ethanol use according to the potential ramp-up described in Section 1.2 of the RIA, the nation is predicted to hit the blend wall in 2014 as shown below in Figure IV.D.2–1.

Figure IV.D.2-1

RFS2 Primary Control Case Compared to E10 Blend Wall



As shown above, we are anticipating almost 14 billion gallons of non-ethanol advanced biofuels under today's RFS2 program. But overall, ethanol is expected to continue to be the nation's primary biofuel with over 22 billion gallons in 2022. To get beyond the blend wall and consume more than 14–15 billion gallons of ethanol, we are going to need to see increases in the number FFVs on the road, the number of E85 retailers, and the FFV E85 refueling frequency.

It is possible that conventional gasoline (E0) could continue to co-exist with E10 and E85 for quite some time. However, for analysis purposes, we have assumed that E10 would replace E0 as expeditiously as possible and that all subsequent ethanol growth would come from E85. Furthermore, we assumed that no ethanol consumption would come from the mid-level ethanol blends (e.g., E15) under our primary control case since they are not currently approved for use in non-FFVs. However, as a sensitivity analysis, we have examined the impacts that E15 would have on ethanol consumption (refer to Section IV.D.3).

a. Projected Gasoline Energy Demand

The maximum amount of ethanol our country is capable of consuming in any given year is a function of the total gasoline energy demanded by the transportation sector. Our nation's gasoline energy demand is dependent on the number of gasoline-powered vehicles on the road, their average fuel economy, vehicle miles traveled (VMT), and driving patterns. For analysis purposes, we relied on the gasoline energy projections provided by EIA in the AEO 2009 final release.[138] AEO 2009 takes the fuel economy improvements set by EISA into consideration and also assumes a slight dieselization of the light-duty vehicle fleet.[139] It also takes the recession's impacts on driving patterns into consideration. The result is a 25% reduction in the projected 2022 gasoline

[138] EIA, Annual Energy Outlook 2009—ARRA Update (Table 2).

[139] The gasoline energy demand forecast provided in AEO 2009—ARRA Update is reasonably consistent with the recently Proposed Rulemaking To Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards (referred to hereafter as the "Light-Duty Vehicle GHG Rule." For more information on the Light-Duty Vehicle GHG Rule, refer to 74 FR 49454 (September 28, 2009).

energy demand from AEO 2007 (a pre-EISA world) to AEO 2009.[140] EIA essentially has total gasoline energy demand (petroleum-based gasoline plus ethanol) flattening out, and even slightly decreasing, as we move into the future.

b. Projected Growth in Flexible Fuel Vehicles

Over one million FFVs were sold in both 2008 and 2009 according to EPA certification data. Despite the recession and current state of the auto industry, automakers are incorporating more and more FFVs into their light-duty production plans. While the FFV system (i.e., fuel tank, sensor, delivery system, etc.) used to be an option on some vehicles, most automakers are moving in the direction of converting entire product lines over to E85-capable systems. Still, the number of FFVs that will be manufactured and purchased in future years is uncertain.

To measure the impacts of increased volumes of renewable fuel, we considered three different FFV production scenarios that might correspond to the three biofuel control cases analyzed for the final rule. For all three cases, we assumed that total light-duty vehicle sales would follow AEO 2009 trends. The latest EIA report suggests lower than average sales in 2008–2013 (less than 16 million vehicles per year) before rebounding and growing to over 17 million vehicles by 2019.[141] These vehicle projections are consistent with EPA's recently proposed Light-Duty Vehicle GHG Rule.[142]

Although we assumed total vehicle and car/truck sales would be the same in all three cases, we assumed varying levels of FFV production. For our low-ethanol control case, we assumed steady business-as-usual FFV growth according to AEO 2009 predictions.[143] For our primary mid-ethanol control case, we assumed increased FFV sales under the presumption that GM, Ford and Chrysler (referred to hereafter as the "Detroit 3") would follow through with their commitment to produce 50% FFVs by 2012. Despite the current state of the economy and the hardships facing the auto industry (GM and Chrysler filed for bankruptcy earlier this year), the Detroit 3 appear to still be moving forward with their voluntary FFV commitment.[144] Under our primary control case, we assumed that non-domestic FFVs sales would track around 2%, consistent with today's production/plans.[145] Finally, for our high-ethanol control case, we assumed a theoretical 80% FFV mandate based on the Open Fuel Standard Act of 2009 that was reintroduced in Congress on March 12, 2009.[146] Given today's reduced vehicle sales and gasoline demand, we believe a mandate would be the only viable means for consuming 32.2 billion gallons of ethanol in 2022.

Under our primary mid-ethanol control case, total FFV sales are estimated at just over 4 million vehicles per year in 2017 and beyond. This is less aggressive than the assumptions made in the NPRM. At that time, we were expecting more cellulosic ethanol which could justify higher FFV production assumptions. We assumed that not only would the Detroit 3 fulfill their 50% by 2012 FFV production commitment, non-domestic automakers might follow suit and produce 25% FFV in 2017 and beyond. We also assumed that annual light-duty vehicle sales would continue around the historical 16 million vehicle mark resulting in 6 million FFVs in 2017 and beyond.

Based on our revised vehicle/FFV production assumptions coupled with vehicle survival rates, VMT, and fuel economy estimates applied in the recently proposed Light-Duty Vehicle GHG Rule, the maximum percentage of fuel (gasoline/ethanol mix) that could feasibly be consumed by FFVs in 2022 would be about 20% (down from 30% in the NPRM). For more information on our FFV production assumptions and fuel fraction calculations, refer to Section 1.7.2 of the RIA.

c. Projected Growth in E85 Access

According to the National Ethanol Vehicle Coalition (NEVC), there are currently 2,100 gas stations offering E85 in 44 states plus the District of Columbia.[147] While this represents significant industry growth, it still only translates to 1.3% of U.S. retail stations nationwide carrying the fuel.[148] As a result, most FFV owners clearly do not have reasonable access to E85. For our FFV/E85 analysis, we have defined "reasonable access" as one-in-four pumps offering E85 in a given area.[149] Accordingly, just over 5% of the nation currently has reasonable access to E85, up from 4% in 2008 (based on a mid-year NEVC pump estimate).[150]

There are a number of states promoting E85 usage by offering FFV/E85 awareness programs and/or retail pump incentives. A growing number of states are also offering infrastructure grants to help expand E85 availability. Currently, 10 Midwest states have adopted a progressive Energy Security and Climate Stewardship Platform.[151] The platform includes a Regional Biofuels Promotion Plan with a goal of making E85 available at one third of all stations by 2025. In addition, the American Recovery and Reinvestment Act of 2009 (ARRA or Recovery Act) recently increased the existing federal income tax credit from $30,000 or 30% of the total cost of improvements to $100,000 or 50% of the total cost of needed alternative fuel equipment and dispensing improvements.[152]

Given the growing number of subsidies, it is clear that E85 infrastructure will continue to expand in the future. However, like FFVs, we expect that E85 station growth will be somewhat proportional to the amount of ethanol realized under the RFS2 program. As such, we analyzed three different E85 growth scenarios for the final rule that could correspond to the three different RFS2 control cases. As an upper bound for our high-ethanol control case, we maintained the 70% access assumption we applied for the NPRM. This is roughly equivalent to all urban areas in the United States offering reasonable (one-in-four-station) access

[140] EIA, Annual Energy Outlooks 2007 & 2009—ARRA Update (Table 2).

[141] EIA, Annual Energy Outlook 2009—ARRA Update (Table 47).

[142] Rulemaking to Establish Light-Duty Vehicle GHG Emission Standards and Corporate Average Fuel Economy Standards, 74 FR 49454 (September 28, 2009).

[143] EIA, Annual Energy Outlook 2009—ARRA Update (Table 47).

[144] Ethanol Producer Magazine, "Automakers Maintain FFV Targets in Bailout Plans." February 2009. This is consistent with information provided in GM and Chrysler's restructuring plans submitted to the U.S. Department of Treasury on February 17, 2009.

[145] Based on 2008 FFV certification data and 2009 projections based on the National Ethanol Vehicle Coalition, 2009 FFV Purchasing Guide.

[146] A copy of H.R. 1476 can be found at: *http://www.opencongress.org/bill/111-h1476/text.*

[147] NEVC Web site, accessed on November 23, 2009.

[148] Based on National Petroleum News gasoline station estimate of 161,768 in 2008.

[149] For a more detailed discussion on how we derived our one-in-four reasonable access assumption, refer to Section 1.6 of the RIA. For the distribution cost implications as well as the cost impacts of assuming reasonable access is greater than one-in-four pumps, refer to Section 4.2 of the RIA.

[150] Computed as percent of stations with E85 (2,101/161,768 as of November 2009 or 1,733/161,768 as of August 2008) divided by 25% (one-in-four stations).

[151] The following states have adopted the plan: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Ohio, South Dakota and Wisconsin. For more information, visit: *http://www.midwesterngovernors.org/resolutions/Platform.pdf.*

[152] *http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_bills&docid=f:h1enr.pdf.*

to E85.[153] For our other control cases we assumed access to E85 would be lower with the logic that retail stations (the majority of which are independently owned and operated and net around $30,000 per year) would not invest in more E85 infrastructure than what was necessary to meet the RFS2 requirements. For our primary mid-ethanol control case we assumed reasonable access would grow from 4% in 2008 to 60% in 2022 and for our low-ethanol control case we assumed that access would only grow to 40% by 2022. As discussed in Section IV.C, we believe these E85 growth scenarios are possible based on our assessment of distribution infrastructure capabilities.

d. Required Increase in E85 Refueling Rates

As mentioned earlier, there were just over 7 million FFVs on the road in 2008. If all FFVs refueled on E85 100% of the time, this would translate to about 8.3 billion gallons of E85 use.[154] However, E85 usage was only around 12 million gallons in 2008.[155] This means that, on average, FFV owners were only tapping into about 0.15% of their vehicles' E85/ethanol usage potential last year. Assuming that only 4% of the nation had reasonable one-in-four access to E85 in 2008 (as discussed above), this equates to an estimated 4% E85 refueling frequency for those FFVs that had reasonable access to the fuel.

There are several reasons behind today's low E85 refueling frequency. For starters, many FFV owners may not know they are driving a vehicle that is capable of handling E85. As mentioned earlier, more and more automakers are starting to produce FFVs by engine/product line, e.g., all 2008 Chevy Impalas are FFVs.[156] Consequently, consumers (especially brand loyal consumers) may inadvertently buy a flexible fuel vehicle without making a conscious decision to do so. And without effective consumer awareness programs in place, these FFV owners may never think to refuel on E85. In addition, FFV owners with reasonable access to E85 and knowledge of their vehicle's E85 capabilities may still not choose to refuel on E85. They may feel inconvenienced by the increased refueling requirements. Based on its lower energy density, FFV owners will need to stop to refuel 21% more often when filling up on E85 over E10 (and likewise, 24% more often when refueling on E85 over conventional gasoline).[157] In addition, some FFV owners may be deterred from refueling on E85 out of fear of reduced vehicle performance or just plain unfamiliarity with the new motor vehicle fuel. However, as we move into the future, we believe the biggest determinant will be price—whether E85 is priced competitively with gasoline based on its reduced energy density (discussed in more detail in the subsection that follows).

To comply with the RFS2 program and consume 22.2 billion gallons of ethanol by 2022 (under our primary ethanol control case), not only would we need more FFVs and more E85 retailers, we would need to see a significant increase in the current FFV E85 refueling frequency. Based on the FFV and retail assumptions described above in subsections (b) and (c), our analysis suggests that FFV owners with reasonable access to E85 would need to fill up on it as often as 58% of the time, a significant increase from today's estimated 4% refueling frequency. In order for this to be possible, there will need to be an improvement in the current E85/gasoline price relationship.

e. Market Pricing of E85 Versus Gasoline

According to an online fuel price survey, E85 is currently priced almost 40 cents per gallon or about 15% lower than regular grade conventional gasoline.[158] But this is still about 30 cents per gallon higher than conventional gasoline on an energy-equivalent basis. To increase our nation's E85 refueling frequency to the levels described above, E85 needs to be priced competitively with (if not lower than) conventional gasoline based on its reduced energy content, increased time spent at the pump, and limited availability. Overall, we estimate that E85 would need to be priced about 25% lower than E10 at retail in 2022 in order for it to make sense to consumers.

However, ultimately it comes down to what refiners are willing to pay for ethanol blended as E85. The more ethanol you try to blend as E85, the more devalued ethanol becomes as a gasoline blendstock. Changes to state and Federal excise tax structures could help promote ethanol blending as E85. Similarly, high crude prices make E85 look more attractive. According to EIA's AEO 2009, crude oil prices are expected to increase from about $80 per barrel (today's price) to $116/barrel by 2022.[159] Based on our retail cost calculations, ethanol would have to be priced around $2/gallon or less in order to be attractive to refiners for E85 blending in 2022. According to the DTN Ethanol Center, the current rack price for ethanol is around $2.20/gallon.[160] However, as explained in Section 4.4 of the RIA, we project that the average ethanol delivered price will come down in the future under the RFS2 program. Therefore, while gasoline refiners and markets will always have a greater profit margin selling ethanol in low-level blends to consumers based on volume, they should be able to maintain a profit selling it as E85 based on energy content in the future.

Once the nation gets past the blend wall, more ethanol will need to be blended as E85 and less as E10. FFV owners who were formerly refueling on gasoline will need to start filling up on E85. Under our primary control case, we expect that 12.9 billion gallons of ethanol would be blended as E10 and 9.3 billion gallons would be blended as E85 to reach the 22.2 billion gallons in 2022. For more on our ethanol consumption feasibility and retail cost calculations, including discussion of the other two control cases, refer to Section 1.7 of the RIA.

3. Consideration of >10% Ethanol Blends

On March 6, 2009, Growth Energy and 54 ethanol manufacturers submitted an application for a waiver of the prohibition of the introduction into commerce of certain fuels and fuel additives set forth in section 211(f) of the Act. This application seeks a waiver for ethanol-gasoline blends of up to 15 percent ethanol by volume.[161] On April

[153] For this analysis, we've defined "urban" as the top 150 metropolitan statistical areas according to the U.S. census and/or counties with the highest VMT projections according the EPA MOVES model, all RFG areas, winter oxy-fuel areas, low-RVP areas, and other relatively populated cities in the Midwest.

[154] Based on average vehicle miles traveled (VMT) and in-use fuel economy (MPG) for FFVs in the fleet in 2008. For more information on FFV E85 fuel consumption calculations, refer to Section 1.7.4 of the RIA.

[155] EIA, Annual Energy Outlook 2009—ARRA Update (Table 17).

[156] NEVC, "2008 Purchasing Guide for Flexible Fuel Vehicles." Refers to all mass produced 3.5 and 3.9L Impalas. However, it is our understanding that consumers may still place special orders for non-FFVs.

[157] Based on our assumption that denatured ethanol has an average lower heating value of 77,012 BTU/gal and conventional gasoline (E0) has average lower heating value of 115,000 BTU/gal. For analysis purposes, E10 was assumed to contain 10 vol% ethanol and 90 vol% gasoline. Based on EIA's AEO 2009 assumption, E85 was assumed to contain 74 vol% ethanol and 26 vol% gasoline on average.

[158] Based on average E85 and regular unleaded gasoline prices reported at *http://www.fuelgaugereport.com/* on November 23, 2009.

[159] EIA, Annual Energy Outlook 2009—ARRA Update (Table 12).

[160] *http://www.dtnethanolcenter.com/index.cfm?show=10&mid=32.*

[161] *http://www.growthenergy.org/2009/e15/Waiver%20Cover%20Letter.pdf.* Additional

21, 2009, EPA issued a **Federal Register** notice announcing receipt of the Growth Energy waiver application and soliciting comment on all aspects of it.[162] On May 20, 2009, EPA issued an additional **Federal Register** notice extending the public comment period by an additional 60 days.[163] The comment period ended on July 20, 2009, and EPA is now evaluating the waiver application and considering the comments which were submitted.

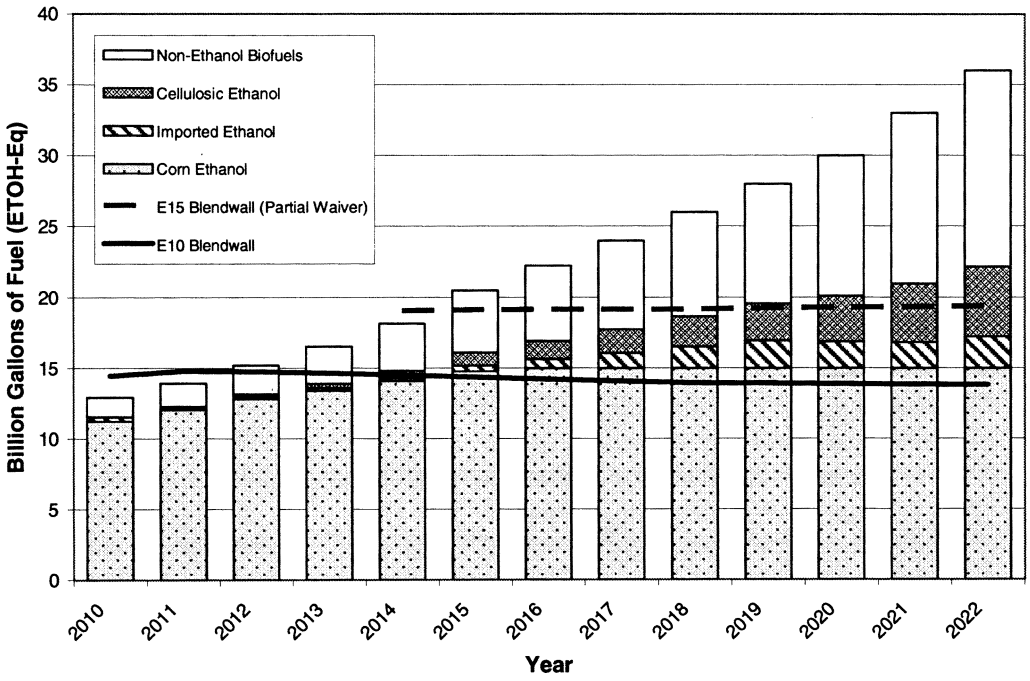
In a letter dated November 30, 2009, EPA notified the applicant that, because crucial vehicle durability information being developed by the Department of Energy would not be available until mid-2010, EPA would be delaying its decision on the application until a sufficient amount of this information could be included in its analysis so that the most scientifically supportable decision could be made.[164] As the current Growth Energy waiver application is still under review, EPA believes it is appropriate to address aspects of the mid-level blend waiver in its decision announcement on the waiver application as opposed to dealing with the comments and evaluation of the potential waiver in the preamble of today's final rule.

Although EPA has yet to make a waiver decision, since its approval could have a significant impact on our analyses that are based on the use of E85, as a sensitivity analysis, we have evaluated the impacts that E15 could have on ethanol consumption feasibility. More specifically, we have assessed the impacts of a partial waiver for newer technology vehicles consistent with the direction of EPA's November 30, 2009 letter. We assumed that E10 would need to continue to co-exist for legacy and non-road equipment based on consumer demand regardless of any waiver decision. For analysis purposes, we assumed E10 would be marketed as premium-grade gasoline (the universal fuel), E15 would be marketed as regular-grade gasoline (to maximize ethanol throughput) and, like today, midgrade would be blended from the two fuels to make a 12.5 vol% blend (E12.5). In addition, we assumed that some E15-capable vehicles would continue to choose E10 or E12.5 based on our knowledge of today's premium and midgrade sales.[165]

In the event of a partial waiver, it is unclear how long it would take for E15 to be fully deployed or whether it would ever be available nationwide. For analysis purposes, we assumed that E15 would be fully phased in and available at all retail stations nationwide by the time the nation hit the blend wall, or around 2014 for our primary control case shown in Figure IV.D.3–1.

Figure IV.D.3-1

Max E15 Ethanol Consumption Compared to Primary Control Case



As modeled, a partial waiver for E15 could increase the ethanol consumption potential from conventional vehicles to about 19 billion gallons. Under our primary control case (shown in Figure IV.D.3–1), E15 could postpone the blend wall by up to five years, or to 2019. Although E15 would fall short of meeting the RFS2 requirements under this scenario, it could provide interim relief while the county ramps up non-ethanol cellulosic biofuel production and expands E85/FFV infrastructure. Under our high-ethanol control case, a partial waiver for E15 could eliminate

supporting documents are available on the Growth Energy Web site.

[162] Refer to 74 FR 18228 (April 21, 2009).

[163] Refer to 74 FR 23704 (May 20, 2009).

[164] *http://www.epa.gov/OMS/regs/fuels/additive/lettertogrowthenergy11-30-09.pdf.*

[165] According to EIA's 2008 Petroleum Annual Outlook (Table 45), midgrade and premium comprise 13.5% of total gasoline sales.

the need for FFV or E85 infrastructure mandates. Under our low-ethanol control case, E15 could eliminate the need for additional FFV/E85 infrastructure all together. For more information, refer to Section 1.7.6 of the RIA.

V. Lifecycle Analysis of Greenhouse Gas Emissions

A. Introduction

As recognized earlier in this preamble, a significant aspect of the RFS2 program is the requirement that a fuel meet a specific lifecycle greenhouse gas (GHG) emissions threshold for compliance for each of four types of renewable fuels. This section describes the methodology used by EPA to determine the lifecycle GHG emissions of biofuels, and the petroleum-based transportation fuels that they replace. EPA recognizes that this aspect of the RFS2 regulatory program has received particular attention and comment throughout the public comment period. Therefore, this section also will describe the enhancements made to our approach in conducting the lifecycle analysis for the final rule. This section will highlight areas where we have incorporated new scientific data that has become available since the proposal as well as the approach the Agency has taken to recognize and quantify, where appropriate, the uncertainty inherent in this analysis.

1. Open and Science-Based Approach to EPA's Analysis

Throughout the development of EPA's lifecycle analysis, the Agency has employed a collaborative, transparent, and science-based approach. EPA's lifecycle methodology, as developed for the RFS2 proposal, required breaking new scientific ground and using analytical tools in new ways. The work was generally recognized as state of the art and an advance on lifecycle thinking, specifically regarding the indirect impacts of biofuels.

However, the complexity and uncertainty inherent in this work made it extremely important that we seek the advice and input of a broad group of stakeholders. In order to maximize stakeholder outreach opportunities, the comment period for the proposed rule was extended to 120 days. In addition to this formal comment period, EPA made multiple efforts to solicit public and expert feedback on our approach. Beginning early in the NPRM process and continuing throughout the development of this final rule, EPA held hundreds of meetings with stakeholders, including government, academia, industry, and non-profit organizations, to gather expert technical input. Our work was also informed heavily by consultation with other federal agencies. For example, we have relied on the expert advice of USDA and DOE, as well as incorporating the most recent inputs and models provided by these Agencies. Dialogue with the State of California and the European Union on their parallel, on-going efforts in GHG lifecycle analysis also helped inform EPA's methodology. As described below, formal technical exchanges and an independent, formal peer review of the methodology were also significant components of the Agency's outreach. A key result of our outreach effort has been awareness of new studies and data that have been incorporated into our final rule analysis.

Technology Exchanges: Immediately following publication of the proposed rule, EPA held a two-day public workshop focused specifically on lifecycle analysis to assure full understanding of the analyses conducted, the issues addressed, and the options discussed. The workshop featured EPA presentations on each component of the methodology as well as presentations and discussions by stakeholders from the renewable fuel community, federal agencies, universities, and environmental groups. The Agency also took advantage of opportunities to meet in the field with key, affected stakeholders. For example, the Agency was able to twice participate in meetings and tours in Iowa hosted by the local renewable fuel and agricultural community. As described in this section, one of the many outcomes of these meetings was an improved understanding of agricultural and biofuel production practices.

As indicated in the proposal, our lifecycle results were particularly impacted by assumptions about land use patterns and emissions in Brazil. During the public comment process we were able to update and refine these assumptions, including the incorporation of new, improved sources of data based on Brazil-specific data and programs. In addition, the Agency received more recent trends on Brazilian crop productivity, areas of crop expansion, and regional differences in costs of crop production and land availability. Lastly, we received new information on efforts to curb deforestation allowing the Agency to better predict this impact through 2022.

Peer Review: To ensure the Agency made its decisions for this final rule on the best science available, EPA conducted a formal, independent peer review of key components of the analysis. The reviews were conducted following the Office of Management and Budget's peer review guidance that ensures consistent, independent government-wide implementation of peer review, and according to EPA's longstanding and rigorous peer review policies. In accordance with these guidelines, EPA used independent, third-party contractors to select highly qualified peer reviewers. The reviewers selected are leading experts in their respective fields, including lifecycle assessment, economic modeling, remote sensing imagery, biofuel technologies, soil science, agricultural economics, and climate science. They were asked to evaluate four key components of EPA's methodology: (1) Land use modeling, specifically the use of satellite data and EPA's proposed land conversion GHG emission factors; (2) methods to account for the variable timing of GHG emissions; (3) GHG emissions from foreign crop production (both the modeling and data used); and (4) how the models EPA relied upon are used together to provide overall lifecycle estimates.

The advice and information received through this peer review are reflected throughout this section. EPA's use of higher resolution satellite data is one example of a direct outcome of the peer review, as is the Agency's decision to retain its reliance upon this data. The reviewers also provided recommendations that have helped to inform the larger methodological decisions presented in this final rule. For example, the reviewers in general supported the importance of assessing indirect land use change and determined that EPA used the best available tools and approaches for this work. However, the review also recognized that no existing model comprehensively simulates the direct and indirect effects of biofuel production both domestically and internationally, and therefore model development is still evolving. The uncertainty associated with estimating indirect impacts and the difficulty in developing precise results also were reflected in the comments. In the long term, this peer review will help focus EPA's ongoing lifecycle analysis work as well as our future interactions with the National Academy of Science and other experts.

Altogether, the many and extensive public comments we received to the rule docket, the numerous meetings, workshops and technical exchanges, and the scientific peer review have all been instrumental to EPA's ability to advance our analysis between proposal and final and to develop the

methodological and regulatory approach described in this section.

2. Addressing Uncertainty

The peer review, the public comments we have received, and the analysis conducted for the proposal and updated here for the final rule, indicate that it is important to take into account indirect emissions when looking at lifecycle emissions from biofuels. It is clear that, especially when considering commodity feedstocks, including the market interactions of biofuel demand on feedstock and agricultural markets is a more accurate representation of the impacts of an increase in biofuels production on GHG emissions than if these market interactions are not considered.

However, it is also clear that there are significant uncertainties associated with these estimates, particularly with regard to indirect land use change and the use of economic models to project future market interactions. Reviewers highlighted the uncertainty associated with our lifecycle GHG analysis and pointed to the inherent uncertainty of the economic modeling.

In the proposal, we asked for comment on whether and how to conduct an uncertainty analysis to help quantify the magnitude of this uncertainty and its relative impact on the resulting lifecycle emissions estimates. The results of the peer review, and the feedback we have received from the comment process, supported the value of conducting such an analysis. Therefore, working closely with other government agencies as well as incorporating feedback from experts who commented on the rule, we have quantified the uncertainty associated specifically with the international indirect land use change emissions associated with increased biofuel production.

Although there is uncertainty in all portions of the lifecycle modeling, we focused our uncertainty analysis on the factors that are the most uncertain and have the biggest impact on the results. For example, the energy and GHG emissions used by a natural gas-fired ethanol plant to produce one gallon of ethanol can be calculated through direct observations, though this will vary somewhat between individual facilities. The indirect domestic emissions are also fairly well understood, however these results are sensitive to a number of key assumptions (e.g., current and future corn yields). The indirect, international emissions are the component of our analysis with the highest level of uncertainty. For example, identifying what type of land is converted internationally and the emissions associated with this land conversion are critical issues that have a large impact on the GHG emissions estimates.

Therefore, we focused our efforts on the international indirect land use change emissions and worked to manage the uncertainty around those impacts in three ways: (1) Getting the best information possible and updating our analysis to narrow the uncertainty, (2) performing sensitivity analysis around key factors to test the impact on the results, and (3) establishing reasonable ranges of uncertainty and using probability distributions within these ranges in threshold assessment. The following sections outline how we have incorporated these three approaches into our analysis.

EPA recognizes that as the state of scientific knowledge continues to evolve in this area, the lifecycle GHG assessments for a variety of fuel pathways will continue to change. Therefore, while EPA is using its current lifecycle assessments to inform the regulatory determinations for fuel pathways in this final rule, as required by the statute, the Agency is also committing to further reassess these determinations and lifecycle estimates. As part of this ongoing effort, we will ask for the expert advice of the National Academy of Sciences, as well as other experts, and incorporate their advice and any updated information we receive into a new assessment of the lifecycle GHG emissions performance of the biofuels being evaluated in this final rule. EPA will request that the National Academy of Sciences over the next two years evaluate the approach taken in this rule, the underlying science of lifecycle assessment, and in particular indirect land use change, and make recommendations for subsequent rulemakings on this subject. This new assessment could result in new determinations of threshold compliance compared to those included in this rule that would apply to future production (from plants that are constructed after each subsequent rule).

B. Methodology

The regulatory purpose of this analysis is to determine which biofuels (both domestic and imported) qualify for the four different GHG reduction thresholds and renewable fuel categories established in EISA (*see* Section I.A). This threshold assessment compares the lifecycle emissions of a particular biofuel against the lifecycle emissions of the petroleum-based fuel it is replacing (*e.g.,* ethanol replacing gasoline or biodiesel replacing diesel). This section discusses the Agency's approach both for assessing the lifecycle GHG emissions from biofuels as well as for the petroleum-based fuels replaced by the biofuels.

As described in detail below, EPA has received a number of comments on the different pieces of this analysis and has thoroughly considered those comments as well as feedback from our peer review process. In each section below we will discuss comments received and how they impacted our analysis.

1. Scope of Analysis

As stated in the proposal, the definition of lifecycle GHG emissions established by Congress in EISA is critical to establishing the scope of our analysis. Congress specified that:

> The term "lifecycle greenhouse gas emissions" means the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Administrator, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer, where the mass values for all greenhouse gases are adjusted to account for their relative global warming potential.[166]

This definition forms the basis of defining the goal and scope of our lifecycle GHG analysis and in determining to what extent changes should be made to the analytical approach outlined in our proposed rulemaking.

a. Inclusion of Indirect Land Use Change

EPA notes that it received significant comment on including international indirect emissions in its lifecycle calculations. Most of the comments suggested that the science of international indirect land use change was too new, or that the uncertainty involved was too great, to be included in a regulatory analysis. EPA continues to believe that compliance with the EISA mandate—determining "the aggregate GHG emissions related to the full fuel lifecycle, including both direct emissions and significant indirect emissions such as land use changes"—makes it necessary to assess those direct and significant indirect impacts that occur not just within the United States, but also those that occur in other countries.

Some commenters strongly supported EPA's proposal to include significant GHG emissions that occur overseas and

[166] Clean Air Act Section 211(o)(1).

are related to the lifecycle of renewable fuels or baseline fuels used in the United States. These commenters agreed that the text of the statute supports EPA's proposed approach, and that the alternative of ignoring such emissions would result in grossly inaccurate assessments, and would be inconsistent with the international nature of GHG pollution and the fact that overseas emissions have domestic impacts.

Other commenters argued that the presumption against extraterritorial application of domestic laws carries with it the presumption that Congress is concerned with domestic effects and domestic impacts only. They assert further that Congress intended to benefit domestic agriculture through EISA enactment, and that the statute's ambiguous terms should not be interpreted in a manner that could harm domestic agriculture in general or, for one commenter, the biodiesel industry in particular. Although considering international emissions in its analyses could result in different implications under the statute for various fuels and fuel pathways as compared to ignoring these emissions, EPA believes that this is precisely the outcome that Congress intended. Implementation of EISA will undoubtedly benefit the domestic agricultural sector as a whole, with some components benefiting more than others depending in part on the lifecycle GHG emissions associated with the products to be made from individual feedstocks. If Congress had sought to promote all biofuel production without regard to GHG emissions related to the full lifecycle of those fuels, it would not have specified GHG reduction thresholds for each category of renewable fuel for which volume targets are specified in the Act.

It is also important to note that including international indirect emissions in EPA's lifecycle analysis does not exercise regulatory authority over activities that occur solely outside the U.S., nor does it raise questions of extra-territorial jurisdiction. EPA's regulatory action involves an assessment of products either produced in the U.S. or imported into the U.S. EPA is simply assessing whether the use of these products in the U.S. satisfies requirements under EISA for the use of designated volumes of renewable fuel, cellulosic biofuel, biomass-based diesel, and advanced biofuel. Considering international emissions in determining the lifecycle GHG emissions of the domestically-produced or imported fuel does not change the fact that the actual regulation of the product involves its use solely inside the U.S.

A number of commenters pointed to the text and structure of the definition of "lifecycle greenhouse gas emissions" to argue that EPA either is not authorized to consider GHG emissions related to international land use change, or that it is not required to do so. One commenter suggested that the reference in the definition of "lifecycle greenhouse gas emissions" to "all stages" of the lifecycle "from" feedstock generation "through" use of the fuel by the ultimate consumer does not include indirect emissions that result from decisions to place more land in acreage overseas for such non-fuel purposes as cattle feed. Another commenter stated that EPA's approach does not give any meaning to the terms "significant" and "fuel lifecycle" in the definition, but instead focuses on the words such as "full" to arrive at an expansive meaning. This commenter also noted the lack of any specific reference to international considerations in Section 211(o), as opposed to other provisions in the CAA, such as Section 115.

EPA believes that a complete analysis of the aggregate GHG emissions related to the full lifecycle of renewable fuels includes the significant indirect emissions from international land use change that are predicted to result from increased domestic use of agricultural feedstocks to produce renewable fuel. The statute specifically directs EPA to include in its analyses significant indirect emissions such as significant emissions from land use changes. EPA has not ignored either the terms "significant" or "life cycle." It is clear from EPA's assessments that the modeled indirect emissions from land use changes are "significant" in terms of their relationship to total GHG emissions for given fuel pathways. Therefore, they are appropriately considered in the total GHG emissions profile for the fuels in question. EPA has not ignored the term "life cycle." The entire approach used by EPA is directed to fully analyzing emissions related to the complete lifecycle of renewable and baseline fuels.

Although the definition of lifecycle greenhouse gas emissions in Section 211(o) does not specifically mention international emissions, it would be inconsistent with the intent of this section of the amended Act to exclude them. A large variety of activities outside the U.S. play a major part in the full fuel lifecycle of both baseline (gasoline and diesel fuel used as transportation fuel in 2005) and renewable fuels. For example, several stages of the lifecycle process for gasoline and diesel can occur overseas, including extraction and delivery of imported crude oil, and for imported gasoline and diesel products, emissions associated with refining and distribution of the finished product to the U.S. For imported renewable fuel, all of the emissions associated with feedstock production and distribution, fuel processing, and delivery of the finished renewable fuel to the U.S. occur overseas. The definition of lifecycle GHG emissions makes it clear that EPA is to determine the aggregate emissions related to the "full" fuel lifecycle, including "all stages of fuel and feedstock production and distribution." Thus, EPA could not, as a legal matter, ignore those parts of a fuel lifecycle that occur overseas.

Drawing a distinction between GHG emissions that occur inside the U.S. as compared to emissions that occur outside the U.S. would result in a lifecycle analysis that bears no apparent relationship to the purpose of this provision. The purpose of the thresholds in EISA is to require the use of renewable fuels that achieve reductions in GHG emissions compared to the baseline. Ignoring international emissions, a large part of the GHG emission associated with the different fuels, would result in a GHG analysis that bears no relationship to the real world emissions impact of transportation fuels. The baseline would be significantly understated, given the large amount of imported crude and imported finished gasoline and diesel used in 2005. Likewise, the emissions estimates for imported renewable fuel would be grossly reduced in comparison to the aggregate emissions estimates for fuels made domestically with domestically-grown feedstocks, simply because the impacts of domestically produced fuels occurred within the U.S. EPA does not believe that Congress intended such a result.

Excluding international impacts means large percentages of GHG emissions would be ignored. This would take place in a context where the global warming impact of emissions is irrespective of where the emissions occur. If the purpose of thresholds is to achieve some reduction in GHG emissions in order to help address climate change, then ignoring emissions outside our borders interferes with the ability to achieve this objective. Such an approach would essentially undermine the purpose of the provision, and would be an arbitrary interpretation of the broadly phrased text used by Congress.

One commenter stated that matters that could appropriately be considered part of a food lifecycle (new land clearing for overseas grain production as a result of decreased U.S. grain exports)

should not be considered part of a renewable fuel lifecycle. However, the suggested approach would mean that EPA would fail to account for the significant indirect emissions that relate to renewable fuel production. EPA believes this would be counter to Congressional intent. Although a life cycle analysis of foreign food production may also take into account a given land use change, that does not mean that the same land use change should not be considered in evaluating its ultimate cause, which may be renewable fuel production in the United States.

Some comments asserted that significant GHG gas emissions from international land use change should not be considered if the only available models for doing so are not generally accepted or valid considering economics or science, or where the approach is new and untested, or where the data are faulty and EPA models unrealistic scenarios. As described in this rulemaking, EPA has used the best available models and substantially modified key inputs to those models to reflect comments by peer reviewers, the public, and emerging science. EPA has also modeled additional scenarios from those described in the NPRM. EPA recognizes that uncertainty exists with respect to the results, and has attempted to quantify the range of uncertainty. While EPA agrees that application of the models it has used in the context of assessing GHG emissions represents changes from previous biofuel lifecycle modeling, EPA disagrees that it has used faulty data, modeled unrealistic scenarios, or that its approach is otherwise scientifically indefensible. Although the results of modeling GHG emissions associated with international land use change are uncertain, EPA has attempted to quantify that uncertainty and is now in a better position to consider the uncertainty inherent in its approach.

One commenter asserted that by considering international land use changes, EPA is seeking to penalize domestic renewable fuel producers for impacts over which they have no control. In response, EPA disagrees that it is seeking to penalize anyone at all. EPA is simply attempting to account for all GHG emissions related to the full fuel lifecycle. Domestic renewable fuel producers may have no direct control over land use changes that occur overseas as a result of renewable fuel production and use here, but their choice of feedstock can and does influence oversees activities, and EPA believes it is appropriate to consider the GHG emissions from those activities in its analyses.

Some commenters noted that a finding of causation is built into the definitions of "indirect effects" in the Endangered Species Act and the National Environmental Policy Act, and that EPA should interpret the reference to "indirect emissions' in EISA as requiring similar findings of causation. Specifically, they argue that for EPA to count GHG emissions from international land use change in its assessments, EPA must find that renewable fuel production "caused" the land use change. In response, without addressing the commenter's claims regarding the requirements of NEPA or the ESA, EPA notes that Congress has specified in Section 211(o) the required causal link between a fuel and indirect emissions. The indirect emissions must be "related to" the full fuel lifecycle. EPA believes that it has demonstrated this link through its modeling efforts. Specifically, the models predict that increased demand for feedstocks to produce renewable fuel that satisfies EISA mandates will likely result in international land use change. Such change is, then, "related to" the full fuel lifecycle of these fuels. EPA does not believe that the statute requires EPA to wait until these effects occur to establish the required linkage, but instead believes that it is authorized to use predictive models to demonstrate likely results.

The term "related to" is generally interpreted broadly as meaning to have a connection to or refer to a matter. To determine whether an indirect emission has the appropriate connection to the full fuel lifecycle, we must look at both the objectives of this provision as well as the nature of the relationship. EPA has used a suite of global models to project a variety of agricultural impacts of the RFS program, including changes in the types of crops and number of acres planted world-wide. These shifts in the agricultural market are a direct consequence of the increased demand for biofuels in the U.S. This increased demand diverts biofuel feedstocks from other competing uses, and also increases the price of the feedstock, thus spurring additional international production. Our analysis uses country-specific information to determine the amount, location, and type of land use change that would occur to meet these changes in production patterns. The linkages of these changes to increased U.S. biofuel demand in our analysis are generally close, and are not extended or overly complex.

Overall, EPA is confident that it is appropriate to consider indirect emissions, including those from both domestic and international land use changes, as "related to" the full fuel lifecycle, based on the results of our modeling. These results form a reasonable technical basis for the linkage between the full fuel lifecycle of transportation fuels and indirect emissions, as well as for the determination that these emissions are significant. EPA believes that while uncertainty in the resulting aggregate GHG estimates should be taken into consideration, it would be inappropriate to exclude indirect emissions estimates from this analysis. The use of reasonable estimates of these kinds of indirect emissions allows EPA to conduct a reasoned evaluation of total GHG impacts, which is needed to promote the objectives of this provision, as compared to ignoring or not accounting for these indirect emissions.

EPA understands that including international indirect land use change is a key decision and that there is significant uncertainty associated with it. That is why we have taken an approach that quantifies that uncertainty and presents the weight of currently available evidence in making our threshold determinations.

b. Models Used

As described in the proposal, to estimate lifecycle indirect impacts of biofuel production requires the use of economic modeling to determine the market impacts of using agricultural commodity feedstocks for biofuels. The use of economic models and the uncertainty of those models to accurately predict future agricultural sector scenarios was one of the main comments we received on our analysis. While the comments and specifically the peer review supported our need to use economic models to incorporate and measure indirect impacts of biofuel production, they also highlighted the uncertainty with that modeling approach, especially in projecting out to the future.

However, it is important to note that while there are many factors that impact the uncertainty in predicting total land used for crop production, making accurate predictions of many of these factors are not relevant to our analysis. For example different assumptions about economic growth rates, weather, and exchange rates will all impact future agricultural projections including amount of land use for crops. However, we are interested only in the difference between two biofuel scenarios holding all other changes constant. So the absolute values and projections for crops and other variables in the model

projections are not as important as the difference the model is projecting due to an increase in biofuels production. This limits the uncertainty of using the economic models for our analysis.

Furthermore, one of the key uncertainties associated with our agricultural sector economic modeling that has the biggest impact on land use change results is the assumptions around crop yields. As discussed in Section V.A.2, we are conducting sensitivity analysis around different yield assumptions in our analysis.

Therefore, because of the fact that we are only using the economic models to determine the difference between two projected scenarios and the fact that we are conducting sensitivity analysis around the yield assumptions we feel it is appropriate and acceptable to use economic models in our analysis of determining GHG thresholds in our final rule analysis.

As was the case in the proposed analysis, to estimate the changes in the domestic agricultural sector (e.g., changes in crop acres resulting from increased demand for biofuel feedstock or changes in the number of livestock due to higher corn prices) and their associated emissions, EPA uses the Forestry and Agricultural Sector Optimization Model (FASOM), developed by Texas A&M University and others. To estimate the impacts of biofuels feedstock production on international agricultural and livestock production, we used the integrated Food and Agricultural Policy and Research Institute international models, as maintained by the Center for Agricultural and Rural Development (FAPRI–CARD) at Iowa State University.

One of the main comments we received on our choice of models was the issue of transparency. Several comments were concerned that the results of EPA's modeling efforts can not be duplicated outside the experts who developed the models and conducted the analysis used by EPA in the proposal. Upon the release of the proposal, EPA requested comment on the use of these various models. EPA conducted a number of measures to gather comments, including the public comment period upon release of the NPRM analysis, holding a public workshop on the lifecycle methodology, and conducting a peer review of the lifecycle methodology. Specifically, one of the major tasks of the peer review of EPA's lifecycle GHG methodology was to review and comment on the use of the various models and their linkages. The response we received through the peer review is supportive of our use of the FASOM and FAPRI–CARD models, affirming that they are the strong and appropriate tools for the task of estimating land use changes stemming from agricultural economic impacts due to changes in biofuel policy.

In addition, in an effort to garner as useful comments as possible and to be as transparent as possible about the modeling process, EPA supplied in the docket technical documents for the FASOM and FAPRI–CARD models, the output received by EPA from each model, and the models themselves such that the public and commenters could learn and examine how each model operates.

Building upon the support for the use of the FASOM and FAPRI–CARD models, a number of important enhancements were made to both models in response to comments received through the public comment system and through the peer review, and in consultation with various experts on domestic and international agronomics. These enhancements include updated substitution rates of corn and soybean meal for distillers grains (DG) based on recent scientific research by Argonne National Laboratory, the addition of a corn oil from the dry mill ethanol extraction process as a source of biodiesel, the full incorporation of FASOM's forestry model that dynamically interacts with the agriculture sector model in the U.S., as well as the addition of a Brazil regional model to the FAPRI–CARD modeling system. All of these enhancements are discussed in more detail below and in the RIA (Chapter 2 and 5). In addition to the model enhancements we also conducted a sensitivity analysis on yields as part of our final rule analysis. These updates to our modeling and the sensitivity analysis was done in response to public comments specifically asking for this to add transparency to the modeling and modeling results.

We also received comments on the combined use of FASOM and FAPRI–CARD. Several comments and peer reviewers questioned the benefit of using two agricultural sector models. Specifically reviewers pointed to some of the inconsistencies in the FASOM and FAPRI–CARD domestic results. For the final rule analysis we worked to reconcile the two model results. We apply the same set of scenarios and key input assumptions in both models. For example, both models were updated to apply consistent treatment of DGs in domestic livestock feed replacement and consistent assumptions regarding DG export.

Some reviewers questioned the benefits of using FASOM and suggested we rely entirely on the FAPRI–CARD model for the analysis. However, we continue to believe there are benefits to the use of FASOM. Specifically, the fact that FASOM has domestic land use change interactions between crop, pasture, and forest integrated into the modeling is an advantage over using the domestic FAPRI–CARD model that only tracks cropland.

c. Scenarios Modeled

As was done for the proposal, to quantify the lifecycle GHG emissions associated with the increase in renewable fuel mandated by EISA, we compared the differences in total GHG emissions between two future volume scenarios in our economic models. For each individual biofuel, we analyzed the incremental GHG emission impacts of increasing the volume of that fuel to the total mix of biofuels needed to meet the EISA requirements. Rather than focus on the impacts associated with a specific gallon of fuel and tracking inputs and outputs across different lifecycle stages, we determined the overall aggregate impacts across sectors of the economy in response to a given volume change in the amount of biofuel produced.

Volume Scenarios: The two future scenarios considered included a "business as usual" volume of a particular renewable fuel based on what would likely be in the fuel pool in 2022 without EISA, as predicted by the Energy Information Agency's Annual Energy Outlook (AEO) for 2007 (which took into account the economic and policy factors in existence in 2007 before EISA). The second scenario assumed a higher volume of renewable fuels as mandated by EISA for 2022.

We project our analysis and economic modeling through the life of the program. We then consider the impacts of an increase of biofuels on the agricultural sector in 2022 as the basis for our threshold analysis. This was an area that we received numerous comments on highlighting that this approach adds uncertainty to our results because we are projecting uncertain technology and other changes out into the future. One of the recommendations was to base the lifecycle GHG assessments on a near term time frame and update the analysis every few years to capture actual technology changes.

We continue to focus our final rule analyses on 2022 results for two main reasons. First, it would require an extremely complex assessment and administratively difficult implementation program to track how biofuel production might continuously change from month to month or year to

year. Instead, it seems appropriate that each biofuel be assessed a level of GHG performance that is constant over the implementation of this rule, allowing fuel providers to anticipate how these GHG performance assessments should affect their production plans. Second, it is appropriate to focus on 2022, the final year of ramp up in the required volumes of renewable fuel as this year. Assessment in this year allows the complete fuel volumes specified in EISA to be incorporated. This also allows for the complete implementation of technology changes and updates that were made to improve or modeling efforts. For example, the inclusion of price induced yield increases and the efficiency gains of DGs replacement are phased in over time. Furthermore, these changes are in part driven by the changes in earlier years of increased biofuel use.

Crop Yield Scenarios: EPA received numerous comments to the effect that we should consider a case in our economic models with higher yields that what were projected for the proposed rule analysis. There are many factors that go into the economic modeling but the yield assumptions for different crops has one of the biggest impacts on land use and land use change. Therefore, for this analysis we ran a base yield case and a high yield case. This will provide two distinct model results for key parameters like total amount of land converted by crop by country.

EPA's base yield projections are derived from extrapolating through 2022 long-term historical U.S. corn yields from 1985 to 2009. This estimate, 183 bushels/acre for corn and 48 bushels/acre for soybeans, is consistent with USDA's method of projecting future crop yields. During the public comment process we learned that numerous technical advancements— including better farm practices, seed hybridization and genetic modification—have led to more rapid gains in yields since 1995. In addition, commenters, including many leading seed companies, provided data supporting more rapid improvements in future yields. For example, commenters pointed to recent advancements in seed development (including genetic modification) and the general accumulation of knowledge of how to develop and bring to market seed varieties—factors that would allow for a greater rate of development of seed varieties requiring fewer inputs such as fertilizer and pest management applications. This new information would suggest that the base yield may be a conservative estimate of future yields in the U.S. Therefore, in coordination with USDA experts, EPA has developed for this final rule a high yield case scenario of 230 bushels/acre for corn and 60 bushels/acre for soybeans. These figures represent the 99% upper bound confidence limit of variability in historical U.S. yields. This high yield case represents a feasible high yield scenario for the purpose of a sensitivity test of the impact on the results of higher yields.

Feedback we received indicated that corn and soybean yields respond in tandem and that a high yield corn case would also imply a higher yield for soybeans as well. The high yield case is therefore based on higher yield corn and soybeans in the U.S. as well as in the major corn and soybean producing countries around the world. For international yields, it is reasonable to assume the same percent increases from the baseline yield assumptions could occur as we are estimating for the U.S. Thus in the case of corn, 230 bushels per acre is approximately 25% higher than the U.S. baseline yield of 183 bushels per acre in 2022. This same 25% increase in yield can be expected for the top corn producers in the rest of the world by 2022, as justified improvements in seed varieties and, perhaps even more so than in the case of the U.S., improvements in farming practices which can take more full advantage of the seed varieties' potential. For example, seeds can be more readily developed to perform well in the particular regions of these countries and can be coupled with much improved farming practices as farmers move away from historical practices such as saving seeds from their crop for use the next year and better understand the economic advantages of modern farming practices. So the high yield scenarios would not have the same absolute yield values in other countries as the U.S. but would have the same percent increase.

While we modeled a high yield scenario for this analysis we continue to rely primarily on the base yield estimates in our assessments of different biofuel lifecycle GHG emissions recognizing that the base yields could be conservative. The reasons outlined above could lead to higher rates of yield growth in the future, however, there are mitigating factors that could limit this yield growth or potentially cause reductions in yield growth rates. For example, the water requirements for both increased corn farming and ethanol production could lead to future water constraints that may in some regions limit yield growth potential. Furthermore, one of the long term impacts of potential global climate change could be a reduction in agricultural output of different impacted regions around the world, including the U.S. This could also serve to reduce yield growth. As with many aspects of this lifecycle modeling, as the science and data evolves on crop yields, the Agency will update its factors accordingly.

2. Biofuel Modeling Framework & Methodology for Lifecycle Analysis Components

As discussed above, to account for the direct and indirect emissions of biofuel production required the use of agricultural sector economic models. The results of these models were combined with other data sources to generate lifecycle GHG emissions for the different fuels. The basic modeling framework involved the following steps and modeling tools.

To estimate the changes in the domestic agricultural sector we used FASOM, developed by Texas A&M University and others. FASOM is a partial equilibrium economic model of the U.S. forest and agricultural sectors that tracks over 2,000 production possibilities for field crops, livestock, and biofuels for private lands in the contiguous United States. Because FASOM captures the impacts of all crop production, not just biofuel feedstock, we are able to use it to determine secondary agricultural sector impacts, such as crop shifting and reduced demand due to higher prices.

The output of the FASOM analysis includes changes in total domestic agricultural sector fertilizer and energy use. These are calculated based on the inputs required for all the different crops modeled and changes in the amounts of the different crops produced due to increased biofuel production. FASOM output also includes changes in the number and type of livestock produced. These changes are due to the changes in animal feed prices and make-up due to the increase in biofuel production. The FASOM output changes in fertilizer, energy use, and livestock are combined with GHG emission factors from those sources to generate biofuel lifecycle impacts. The GHG emission factors for fuel and fertilizer production come from the Greenhouse gases, Regulated Emissions, and Energy use in Transportation (GREET) spreadsheet analysis tool developed by Argonne National Laboratories, and livestock GHG emission factors are from IPCC guidance.

To estimate the domestic impacts of N_2O emissions from fertilizer application, we used the DAYCENT

model developed by Colorado State University. The DAYCENT model simulates plant-soil systems and is capable of simulating detailed daily soil water and temperature dynamics and trace gas fluxes (CH_4, N_2O, and NO_X). DAYCENT model results for N_2O emissions from different crop and land use changes were combined with FASOM output to generate overall domestic N_2O emissions.

FASOM output also provides changes in total land use required for agriculture and land use shifting between crops, and interactions with pasture, and forestry. This output is combined with emission factors from land use change to generate domestic land use change GHG emissions from increased biofuel production.

To estimate the impacts of biofuels feedstock production on international agricultural and livestock production, we used the integrated FAPRI–CARD international models, developed by Iowa State University. These worldwide agricultural sector economic models capture the biological, technical, and economic relationships among key variables within a particular commodity and across commodities.

The output of the FAPRI–CARD model included changes in crop acres and livestock production by type by country globally. Unlike FASOM, the FAPRI–CARD output did not include changes in fertilizer or energy use or have land type interactions built in. These were developed outside the FAPRI–CARD model and combined with the FAPRI–CARD output to generate GHG emission impacts.

Crop input data by crop and country was developed and combined with the FAPRI–CARD output crop acreage change data to generate overall changes in fertilizer and energy use. These fertilizer and energy changes along with the FAPRI–CARD output livestock changes were then converted to GHG emissions based on the same basic approach used for domestic sources, which involves combining with emission factors from GREET and IPCC.

International land use change emissions were determined based on combining FAPRI–CARD output of crop acreage change with satellite data to determine types of land impacted by the projected crop changes and then applying emission factors of different land use conversions to generate GHG impacts.

Additional modeling and data sources used to determine the GHG emissions of other stages in the biofuel lifecycle include studies and data on the distance and modes of transport needed to ship feedstock from the field to the biofuel processing facility and the finished biofuel from the facility to end use. These distances and modes are used to develop amount and type of energy used for transport which is combined with GREET factors to generate GHG emissions. We also calculate energy use needed in the biofuel processing facility from industry sources, reports, and process modeling. This energy use is combined with emissions factors from GREET to develop GHG impacts of the biofuel production process

The following sections outline how the modeling tools and methodology discussed above were used in conducting the analysis for the different lifecycle stages of biofuel production, including changes made since the proposal. Lifecycle stages discussed include feedstock production, land use change, feedstock and fuel transport, biofuel production, and vehicle end use. The modeling of the petroleum fuels baseline is discussed in Section V.B.3.

a. Feedstock Production

Our analysis addresses the lifecycle GHG emissions from feedstock production by capturing both the direct and indirect impacts of growing corn, soybeans, and other renewable fuel feedstocks. For both domestic and international agricultural feedstock production, we analyzed four main sources of GHG emissions: agricultural inputs (*e.g.,* fertilizer and energy use), fertilizer N_2O, livestock, and rice methane. (Emissions related to land use change are discussed in the next section).

i. Domestic Agricultural Sector Impacts

Agricultural Sector Inputs: The proposal analysis calculated GHG emissions from domestic agriculture fertilizer and energy use and production change by applying rates of energy and fertilizer use by crop by region to the FASOM acreage data and then multiplying by default factors for GHG emissions from GREET. Fuel use emissions from GREET include both the upstream emissions associated with production of the fuel and downstream combustion emissions.

In general commenters supported this approach as it captures all indirect impacts of agricultural sector emissions and not just those associated with the specific biofuel crop in question. However, we did receive comments as part of our Model Linkages Peer Review that the input data for some crops may be overestimating GHG emissions. Specifically, the commenter highlighted that N_2O emissions from domestic hay production seemed to be over estimated. As part of the final rule analysis EPA confirmed that input data was being used correctly, however, the hay N_2O emissions in the proposal may have been overestimated based on the approach used in the proposal to generate N_2O emissions from nitrogen fixing crops. This has been updated for the final rule analysis as discussed in the next section which resulted in lower emissions from nitrogen fixing crops.

Other comments indicated that we should be using the most up to date data for our calculations of GHG emissions. Since the proposal there has been a new release of the GREET model (Version 1.8C). EPA reviewed the new version and concluded that this was an improvement over the previous GREET release that was used in the proposal analysis (Version 1.8B). Therefore, EPA updated the GHG emission factors for fertilizer production used in our analysis to the values from the new GREET version. This had the result of slightly increasing the GHG emissions associated with fertilizer production and thus slightly increasing the GHG emission impacts of domestic agriculture.

As was the case in the proposal, we held the rates of domestic fertilizer application constant over time. This is true for both of our yield scenarios considered as well as for price induced yield increases. This constant rate of application is justified based on USDA data indicating that crops are becoming more efficient in their uptake of fertilizer such that higher yields can be achieved based on the same per acre fertilizer application rates.

N_2O Emissions: The proposal analysis calculated N_2O emissions from domestic fertilizer application and nitrogen fixing crops based on the amount of fertilizer used and different regional factors to represent the percent of nitrogen (N) fertilizer applied that result in N_2O emissions. The proposal analysis N_2O factors were based on existing DAYCENT modeling that was developed using the 1996 IPCC guidance for calculating N_2O emissions from fertilizer applications and nitrogen fixing crops. We identified in the proposal that this was an area we would be updating for the final rule based on new analysis from Colorado State University using the DAYCENT model. This update was not available at time of proposal.

We received a number of comments on our proposal results indicating that the N_2O emissions were overestimated from soybean and other legume production (e.g., nitrogen fixing hay) in our analysis. The main issue is that because the N_2O emission factors used in the proposal were based on the 1996

IPCC guidance for N_2O accounting they were overestimating N_2O emissions from nitrogen fixing crops. As an update in 2006, IPCC guidance was changed such that biological nitrogen fixation was removed as a direct source of N_2O because of the lack of evidence of significant emissions arising from the fixation process itself. IPCC concluded that the N_2O emissions induced by the growth of legume crops/forages may be estimated solely as a function of the above-ground and below-ground nitrogen inputs from crop/forage residue. This change effectively reduces the N_2O emissions from nitrogen fixing crops like soybeans and nitrogen fixing hay from the 1996 to 2006 IPCC guidance.

Therefore, as part of the update to new N_2O emission factors from DAYCENT used for our final rule analysis we have updated to the 2006 IPCC guidance which reduces the N_2O emissions from soybean production. This has the effect of reducing lifecycle GHG emissions for soybean biodiesel production. When we model corn expansion as would result from increased production of corn-based ethanol, one of the impacts is that the increase in corn acres displaces some acres otherwise planted to soy beans. Since the GHG emissions impact of this change in land use considers the N_2O emissions benefit from the displaced soy, the result of this lower soy bean N_2O assessment means that the benefits for soy displacement are less, directionally increasing the net GHG emissions for corn expansion.

We also received comments on our approach that we should use IPCC factors directly as opposed to relying on DAYCENT modeling. The difference is that IPCC provides default factors by crop by country, while DAYCENT models N_2O emissions by crop but also by region within the US, accounting for different soil types and weather factors. For the final rule we still rely on the DAYCENT modeling results as we believe them to be more accurate. For example, the National Greenhouse Gas Inventory as reported annually by the US to the Framework Convention on Climate Change uses the DAYCENT model to determine N_2O emissions from domestic fertilizer use as opposed to using default IPCC factors as the DAYCENT modeling is recognized to be a more accurate approach.

Livestock Emissions: GHG emissions from livestock have two main sources: enteric fermentation and manure management. For the proposal, enteric fermentation methane emissions were determined by applying IPCC default factors for different livestock types to herd values as calculated by FASOM to get GHG emissions. Comments we received on this approach were that the default IPCC factors do not account for the beneficial use of distiller grains (DGs) as animal feed. Use of DGs has been shown to decrease methane produced from enteric fermentation if replacing corn as animal feed. This is due to the fact that the DGs are a more efficient feed source. Consistent with our assumptions regarding the efficiency of DGs as an animal feed in our agricultural sector modeling, we have also included the enteric fermentation methane reductions of DGs use in our final rule analysis. The reduction amount was based on default factors in GREET that calculated this reduction based on the same Argonne report used to determine DGs feed replacement efficiency discussed in Section V.B.2.b.i. This resulted in a reduction in the lifecycle GHG emissions for corn ethanol compared to the proposal assumptions. More detail on the enteric fermentation methane reductions of DGs use can be found in Chapter 2 of the RIA.

The proposal analysis also included the methane and N_2O emissions of livestock manure management based on IPCC default factors for emissions from the different types of livestock and management methods combined with FASOM results for livestock changes. We received comments that this was a good approach as it quantifies the indirect impacts of emissions associated with biofuel production. The same approach was used for the final rule analysis.

Methane from Rice: For the proposal, methane emissions from rice production were calculated by taking the FASOM output predicted changes in rice acres, resulting from the increase in biofuel production, and multiplying by default methane emission factors from IPCC to generate GHG impacts. We received comments that this was a good approach as it quantifies the indirect impacts of emissions associated with biofuel production. The same approach was used for the final rule analysis.

ii. International Agricultural Sector Impacts

Agricultural Sector Inputs: For the proposal we determined international fertilizer and energy use emissions based on applying input data collected by the Food and Agriculture Organization (FAO) of the United Nations and the International Energy Agency (IEA) to the FAPRI–CARD crop output data and then applied GREET defaults for converting those inputs to GHG emissions.

As part of our public comment and peer review process we had this component of our analysis specifically peer reviewed. The main comment we received was to update our input data with newer data sources. Therefore, for the final rule analysis we updated fertilizer and pesticide consumption projections from the incorporation of updates made by the FAO to its Fertistat and FAOStat datasets, as well as the incorporation of more up-to-date fertilizer consumption statistics provided by a recent International Fertilizer Institute (IFA) report. This update had varying impacts on the amount of fertilizer used on different crops in different countries but in general increased the amount of fertilizer assumed and thus international agriculture lifecycle GHG emissions from fertilizer use for all biofuels.

Another comment from the peer review was that we should include lime use for some of the key crops modeled in our analysis. Lime use was not included in the proposal because of lack of international data on lime use by crop. Excluding lime used is an underestimate of international agriculture GHG emissions. For our final rule analysis we included lime use for sugarcane production in Brazil based on information received from Brazilian agricultural experts provided as part of the comment process. This led to an increase in GHG emissions from sugarcane farming. We did not include lime use for other crops in the final rule analysis because of lack of other data sources for other crops.

Other comments we received on our approach were that we were potentially underestimating GHG emissions from international agriculture energy use. Our proposal based international agriculture energy use on factors from the International Energy Agency (IEA) that included all energy use for agriculture that we divided by all agricultural sector land by country to get a GHG emission per acre for each country considered. The comment raised the issue that by using all agricultural land this includes pasture land that would not have the same energy input as crop production. Effectively, higher energy use from crop production was getting averaged with lower energy use for pasture and then this lower number was applied only to crop production. We specifically asked as part of our peer review for guidance and comment on our international agriculture energy use calculation. We did not receive significant comments or data to suggest that we change our approach and reviewers generally

agreed we were using the best data available. Furthermore, the energy use values represent all agriculture including forestry and fishing which could in some countries be overestimating energy use for crop production. So for our final rule analysis we used the same approach as for the proposal to calculate international agriculture energy use GHG emissions.

We also received comments on the applicability of applying GREET defaults for fuel and fertilizer production to international fuel and fertilizer use to generate GHG emissions. The comments noted that GREET factors are developed for domestic US conditions and would not necessarily apply internationally. Specifically on the issue of nitrogen fertilizer production, the comments indicated that nitrogen fertilizer production internationally could rely on coal as a fuel source as opposed to natural gas used in the US, which would cause international GHG emissions associated with fertilizer production and hence biofuel production to be underestimated in our analysis. This was also an area we asked peer reviewers for comment and guidance. The peer review response generally supported our approach and did not offer suggestions for other data sources. So for our final rule analysis we used the same approach as for the proposal and applied GREET defaults to calculate international fertilizer production GHG emissions.

As was the case in the proposal and for domestic agriculture, we held the rates of international fertilizer application constant over time. This is true for both of our yield scenarios considered as well as for price induced yield increases. This was an area that was specifically addressed in our peer review of International Agricultural Greenhouse Gas Emissions and Factors. The reviewers supported the approach we have taken, for example indicating that generally crop production as a unit of fertilizer application has increased over time, therefore, crop yields have increased with the same or lower fertilizer applications.

N_2O Emissions: For the proposal we included N_2O emissions from fertilizer application by applying IPCC default factors for different crops in different countries. We use IPCC default factors because we do not have the same level of regional factors like we do in the US from the DAYCENT model. The IPCC guidance has emission factors for four sources of N_2O emissions from crops, Direct N_2O Emissions from Synthetic Fertilizer Application, Indirect N_2O Emissions from Synthetic Fertilizer Application, Direct Emissions from Crop Residues, and Indirect Emissions from Crop Residues. The proposal did not include N_2O emissions from the Direct and Indirect Emissions from Crop Residues for cotton, palm oil, rapeseed, sugar beet, sugarcane, or sunflower. These were not included for these crops because default crop-specific IPCC factors used in the calculation were not available.

Comments from our peer review process suggested that we include proxy emissions from these crops based on similar crop types that do have default factors. Therefore, for our final rule analysis we have included crop residue N_2O emissions from sugarcane production based on perennial grass as a proxy. Perennial grass is chosen as a proxy based on input from N_2O modeling experts. This change results in an increase in N_2O emissions from sugarcane and therefore sugarcane ethanol production compared to the proposal.

Livestock Emissions: Similar to domestic livestock impacts, enteric fermentation and manure management GHG emissions were included in our proposal analysis. The proposal calculated international livestock GHG impacts based on activity data provided by the FAPRI–CARD model (*e.g.,* number and type of livestock by country) multiplied by IPCC default factors for GHG emissions.

Based on the peer review of the methodology used for the proposal it was determined that the calculations for manure management did not include emissions from soil application. These emissions were included for our final rule analysis but do not cause a significant change in the livestock GHG emission results.

Rice Emissions: To estimate rice emission impacts internationally, the proposal used the FAPRI–CARD model to predict changes in international rice production as a result of the increase in biofuels demand in the U.S. We then applied IPCC default factors by country to these predicted changes in rice acres to generate GHG emissions. We received comments that this was a good approach as it quantifies the indirect impacts of emissions associated with biofuel production. The same approach was used for the final rule analysis.

b. Land Use Change

The following sections discuss our final rulemaking assessment of GHG emissions associated with land use changes that occur domestically and internationally as a result of the increase in renewable fuels demand in the U.S. There are four main methodology questions addressed both domestically and internationally:

- Amount of Land Converted and Where.
- Type of Land Converted.
- GHG Emissions Associated with Conversion.
- Timeframe of Emission Analysis.

Each of those methodology components are discussed as are the comments we received as part of the comment and peer review process. We also outline in addition to our main FASOM and FAPRI–CARD approach a general equilibrium modeling approaches and its results.

i. Amount of Land Area Converted and Where

Based on a number of modeling changes made to the FASOM and FAPRI–CARD models since the NPRM, the amount of land use change resulting from an increase in biofuel demand in the U.S. is significantly lower in this FRM analysis for most renewable fuels. Many of the changes made were a direct result of comments received through the notice-and-comment period, comments received from the peer-reviewers, or as a result of incorporating new science that has become available since the analysis was conducted in the proposal. Some of the key changes that had the largest impact on the land use change estimates are included in this section. For additional information, *see* Chapter 2 of the RIA.

As discussed in the NPRM, one of the key factors in determining the amount of new land needed to meet an increase in biofuel demand is the treatment of co-products of ethanol and biodiesel production. We received many comments on this topic, particularly on the amount of corn and soybean meal a pound of DGS, the byproduct of dry mill grain ethanol production, can replace in animal feed. For the final rule, we predict that distiller grains will be absorbed by livestock more efficiently over time. We updated the displacement rate assumptions in the FASOM and FAPRI–CARD models based on comments we received and on the recent research conducted by Argonne National Laboratory and others.[167] According to this research, one pound of DGS replaces more than a pound of corn and/or soybean meal in beef and dairy rations, in part because cattle fed DGS show faster weight gain and increased milk production compared to those fed a traditional diet. While this

[167] Salil, A., M. Wu, and M. Wang. 2008. "Update of Distillers Grains Replacement Ratios for Corn Ethanol Life-Cycle Analysis." Available at *http://www.transportation.anl.gov/pdfs/AF/527.pdf.*

study represents a significant increase over current DGS replacement rates, we believe it is reasonable to assume that improvements will be made in the use and efficiency of DGS over time as the DGS market matures, the quality and consistency of DGS improves, and as livestock producers learn to optimize DGS feed rations. As a result of this modification, less land is needed to replace the amount of corn diverted to ethanol production. Additional details on the DGS assumptions are included in Chapters 2 and 5 of the RIA.

A second factor that can have a significant impact on the amount of land that may be converted as a result of increasing biofuel demand are changes in crop yields over time. As discussed in the NPRM, our proposal based domestic yields on USDA projections for both the reference case and the control case. As discussed in Section V.B.1.c, for this FRM we have also included scenarios that use higher yield projections in both the reference case and the control case. However, in the NPRM we also requested comment on whether the higher prices caused by an increased in demand for biofuels would increase future yield projections in the policy case beyond the yield trends in the reference case (sometimes referred to as "price induced yields"), or whether these price induced yields would be offset by the reduction in yields associated with expanding production onto new marginal acres (sometimes referred to as extensification). Based on the comments we received, along with additional historical trend analysis conducted by FAPRI–CARD, the international agricultural modeling framework now incorporates a price induced yield component.[168] The new yield adjustments are partially offset by the extensification factor, however, the combined impact is that fewer new acres are needed for agricultural production to meet world agricultural demands.

One additional change we made to the yield assumptions was to update the FASOM model with new analysis by Pacific Northwest National Laboratories (PNNL) on switchgrass yields.[169] We included this new data for two reasons. First, we received several comments that our assumptions on switchgrass yields were too low, based on more recent field work. In addition, for out NPRM analysis, we did not have data for switchgrass yields in certain regions of the US. Therefore, the PNNL data helped to fill a pre-existing data gap. As a result of these updates, less land is needed per gallon of switchgrass ethanol produced. Additional details on switchgrass yields and other agricultural sector modeling assumptions are included in RIA Chapter 5.

One of the major changes made to the FAPRI–CARD model between the NPRM and FRM includes the more detailed representation of Brazil through a new integrated module. The Brazil module was developed by Iowa State with input from Brazilian agricultural sector experts and we believe it is an improvement over the approach used in the proposal. In the NPRM, we requested additional data for countries outside the U.S. We received comments encouraging us to use regional and country specific data where it was available. We also received comments encouraging us to take into account the available supply of abandoned pastureland in Brazil as a potential source of new crop land. The new Brazil module addresses these comments. Since the Brazil module contains data specific to six regions, this additional level of details allows FAPRI–CARD to more accurately capture real-world responses to higher agricultural prices. For example, double cropping (the practice of planting a winter crop of corn or wheat on existing crop acres) is a common practice in Brazil. Increased double cropping is feasible in response to higher agricultural prices, which increases total production without increasing land use conversion. The new Brazil module also explicitly accounts for changes in pasture acres, therefore accounting for the competition between crop and pasture acres. Furthermore, the Brazil module explicitly models livestock intensification, the practice of increasing the number of heads of cattle per acre of land in response to higher commodity prices or increased demand for land.

In addition to modifying how pasture acres are treated in Brazil, we also improved the methodology for calculating pasture acreage changes in other countries. We received several comments through the public comment period and peer reviewers supporting a better analysis of the interaction between crops, pasture, and livestock. In the NPRM, although we accounted for GHG emissions from livestock production (*e.g.,* manure management), we did not explicitly account for GHG emissions from changes in pasture demand. In response to comments received, our new methodology accounts for changes in pasture area resulting from livestock fluctuations and therefore captures the link between livestock and land used for grazing. Based on regional pasture stocking rates (livestock per acre), we now calculate the amount of land used for livestock grazing. The regional stocking rates were determined with data on livestock populations from the UN Food and Agricultural Organization (FAO) and data on pasture area measured with agricultural inventory and satellite-derived land cover data. As a result of this change, in countries where livestock numbers decrease, less land is needed for pasture. Therefore, unneeded pasture acres are available for crop land or allowed to revert to their natural state. In countries where livestock numbers increase, more land is needed for pasture, which can be added on abandoned cropland or unused grassland, or it can result in deforestation. We believe this new methodology provides a more realistic assessment of land use changes, especially in regions where livestock populations are changing significantly. For additional information on the pasture replacement methodology, *see* RIA Chapter 2.

Although the total amount of land use conversion is lower in the FRM analysis compared to the NPRM analysis, the regional distribution of this land use change has shifted. Due to the many changes made in response to comments associated with agriculture and livestock markets, Brazil is now much more responsive to changes in world biofuel and agricultural product demand. As a result, a larger portion of the projected land use change occurs in Brazil compared to the NPRM analysis. Additional details on the geographical location of land use change are included in Chapter 2 of the RIA.

ii. Type of Land Converted

Based on a number of improvements in our analysis, the types of land affected by biofuel-induced tend to be less carbon intensive compared to the NPRM. Therefore, the net effect of our revisions to this part of our analysis significantly reduced land use change GHG emissions. The updated FAPRI–CARD Brazil model, discussed in the previous section, showed more pasture expansion in the Amazon which increased land use change emissions. However, the most important revisions to this part of our international analysis, in terms of their net effect on GHG emissions, were improvements that we made in our modeling of the

[168] *Technical Report: An Analysis of EPA Renewable Fuel Scenarios with the FAPRI–CARD International Models,* CARD Staff, January, 2010.

[169] Thomson, A.M., R.C. Izarrualde, T.O. West, D.J. Parrish, D.D. Tyler, and J.R. Williams. 2009. Simulating Potential Switchgrass Production in the United States. PNNL–19072. College Park, MD: Pacific Northwest National Laboratory.

interactions between livestock, pasture, crops and unused, or underutilized, grasslands globally. In the NPRM we made the broad assumption that international crop expansion would necessarily displace pasture, which would require an equivalent amount of pasture to expand into forests and shrublands. In the FRM analysis as discussed in the previous section, we have linked international changes in livestock production with changes in pasture area to allow for pasture abandonment in regions where livestock production decreases as a result of biofuel production. We also incorporated the ability of pasture to expand onto unused, or underutilized, grasslands and savannas which on a global basis reduced the amount of forest conversion compared to the proposal. These revisions, as well as a quantitative uncertainty assessment, are discussed in this section.

In the same way that the amount and location of land use change is important, the type of land converted is also a critical determinant of the magnitude of the GHG emissions impacts associated with biofuel production. For example, the conversion of rainforest to agriculture results in a much larger GHG release than conversion of grassland. In the proposed rule analysis we used two approaches, based on the best available information to us at the time, to evaluate the types of land that would be affected domestically and internationally. Domestically, we used the FASOM model, which simulates rental rates for different types of land (*e.g.,* forest, pasture, crop) and chooses the land uses that would produce the highest net returns. Internationally, we used the FAPRI–CARD/Winrock analysis whereby historical land conversion trends, as evaluated with satellite imagery, are used to determine what types of land are affected by agricultural land use changes in each country or sub-region.

In the proposed rule we also explained several other options to determine what types of land will be affected by biofuel-induced land use changes, such as the use of general equilibrium models. EPA specifically sought expert peer review input and public comment on our approach and all of the analytical options for this part of the lifecycle assessment. The expert peer reviewers agreed that EPA's approach was scientifically justifiable, but they highlighted problematic areas and suggested important revisions to improve our analysis. The public comments received on this issue expressed a wide range of views regarding EPA's approach. In general, the commenters that objected to our analytical approach raised similar concerns as the peer reviewers, such as the need for more data validation and uncertainty assessment. As discussed below, we made significant improvements to our analysis based on the recommendations and comments we received. Based on the peer reviewers agreement that our general approach is scientifically justifiable, and in light of the significant improvements made, we think that our approach represents the best available analysis of the types of land affected by biofuel-induced land use changes. We did consider a range of other analytical options, but based on all of the information considered and the requirements for this analysis, we did not find any alternative approaches that are superior at this time. As part of periodic updates to the lifecycle analysis, we will continue to consider ways to improve this part of our analysis, as well as the merits of alternate approaches.

Domestic: In response to comments received, we made two major improvements to the FASOM model for the final rulemaking. As discussed in the NPRM and supported by comments, we were able to include the forestry sector into the FASOM analysis. Only the agricultural sector of FASOM was analyzed for the NPRM, due to the fact that the forestry sector component was undergoing model modifications. For this FRM analysis, we were able to use the fully integrated forestry and agricultural sector model, thereby capturing the interaction between agricultural land and forests in the U.S. In addition, the inclusion of the forestry model allows us to explicitly model the land use change impacts of the competing demand for cellulosic ethanol from agricultural sources with cellulosic ethanol from logging and mill residues. As a result of this modification, the FRM analysis includes some land use conversion from forests into agriculture in the U.S. as a result of the increased demand for renewable fuels.

The second major modification we made in response to comments was the disaggregation of different types of land included in FASOM. In the proposed rulemaking, the FASOM model included three major categories of land: cropland, pasture, and acres enrolled in the Conservation Reserve Program (CRP). Although this categorization allowed for a detailed regional analysis of land used to grow crops, acres used for livestock production were not fully captured. We received comments requesting a more detailed breakdown of land types in order to capture the interaction between livestock, pasture, and cropland. Therefore, the FASOM model now includes rangeland, pasture and forest land that can be used for grazing. Since we also received comments that we should take into account the potential for idle land to be used for other purposes such as the production of cellulosic ethanol, FASOM now accounts for the amount of land within each category that is either idle or used for production.

These two major modifications to the FASOM model now allow us to explicitly track land transfers between various land categories in the U.S. As a result, we can more accurately capture the GHG impacts of different types of land use changes domestically. More detail and results of the FASOM model can be found in Section V.B.1.b of the preamble.

International: The proposed rule included a detailed description of the FAPRI–CARD/Winrock approach used to determine the type of land affected internationally. This approach uses satellite data depicting recent land conversion trends in conjunction with economic projections from the FAPRI–CARD model (an economic model of global agricultural markets) to determine the type of land converted internationally. In the proposed rule we described areas of uncertainty in this approach, illustrated the uncertainty with sensitivity analyses, and discussed other potential approaches for this analysis. To encourage expert and stakeholder feedback, EPA specifically invited comment on this issue, held public hearings and workshops, and sponsored an independent peer-review, all of which specifically highlighted this part of our analysis for feedback. While there were a wide range of views expressed in these forums, the feedback received by the Agency generally supported the FAPRI–CARD/Winrock approach as appropriate for this analysis. For example, all five experts that peer reviewed EPA's use of satellite imagery agreed that it is scientifically justifiable to use historic remote sensing data in conjunction with agricultural sector models to evaluate and project land use change emissions associated with biofuel production. Additionally, the peer reviewers and public commenters highlighted problematic areas and suggested revisions to improve our analysis. Below, we describe the key revisions that were implemented which have significantly improved our analysis based on the feedback received.

FAPRI–CARD/Satellite Data Approach: As described above in

Section V.B.1.b, the FAPRI–CARD model was used to determine the amount of land use change in each country/region in response to increased biofuel production. Because the FAPRI–CARD model does not provide information about what type of land is converted to crop production or pasture, we worked with Winrock International to evaluate the types of land that would be affected internationally. Winrock is a global nonprofit organization with years of experience in the development and application of the IPCC agricultural forestry and other land use (AFOLU) guidance. For the proposed rule, we used satellite data from 2001–2004 to provide a breakdown of the types of land converted to crop production. A key strength of this approach is that satellite information is based on empirical observations which can be verified and statistically tested for accuracy. Furthermore, it is reasonable to assume that recent land use change decisions have been driven largely by economics, and, as such, recent patterns will continue in the future, absent major economic or land use regime shifts caused, for example, by changes in government policies.

As discussed above, all five of the expert peer reviewers that reviewed our use of satellite imagery for this analysis agreed that our general approach was scientifically justifiable. However, all of the peer reviewers qualified that statement by describing relevant uncertainties and highlighting revisions that would improve our analysis. Some of the public commenters supported EPA's use of satellite imagery, while other expressed concern. In general, both sets of public commenters—those in favor and opposed—outlined the same criticisms and suggestions as the expert peer reviewers. Among the many valuable suggestions for satellite data analysis provided in the expert peer reviews and public comments, several major recommendations emerged: EPA should use the most recent satellite data set that covers a period of at least 5 years; EPA should use higher resolution satellite imagery; EPA's analysis should consider a wider range of land categories; EPA should improve it's analysis of the interaction between cropland, pasture and unused or underutilized land; and EPA's analysis should include thorough data validation and a full assessment of uncertainty. Below, we describe these and other recommendations and how we addressed each of them to improve our analysis. Based on the peer reviewers agreement that our general approach is scientifically justifiable, and in light of the significant improvements made, we think that our approach represents the best available analysis of the types of land affected internationally.

One of the fundamental improvements in this analysis since the proposed rule is that it now provides global coverage. The analysis for the proposed rule included satellite imagery for 6 land categories in 314 regions across 35 of the most important countries, with a weighted average applied to the rest of the world. We have since completed a global satellite data analysis including 9 land categories in over 750 distinct regions across 160 countries. This was an analytical improvement that we committed to do in the proposed rule. As described below, the other major analytical enhancements were conducted in response to the many technical recommendations that we received as part of the peer review and public comment process.

All of the expert peer reviewers agreed that the version 4 MODIS data set used in the proposed rule, which covers 2001–2004 with one square-kilometer (1km) spatial resolution, was appropriate for our analysis given the goals of the study at the time. However, almost all of the reviewers strongly recommended using a data set covering a longer time period. The reviewers argued that the 3-year time period from 2001–2004 was too short to capture the often gradual, or sequential, cropland expansion that has been observed in the tropics. The short time period may also show unusual or temporary trends in land use caused by short-term policy changes or market influences. The reviewers suggested that remote sensing observations covering 5–10 years would be adequate to address these problems. The reviewers also recommended that remote sensing observations should be as recent as possible in order to capture current land use change drivers and patterns (*e.g.,* political systems, infrastructure, and protected areas). To use the best available data and respond to the peer reviewers' recommendations, the analysis was updated to include the most recent MODIS data set, version 5, which covers the time period 2001–2007. MODIS land cover products are not available for years prior to 2001, so it is not currently possible to analyze a time period longer than six years (*i.e.,* 2001–2007) with a single, or consistent, data set. Thus, consistent with the peer review recommendations, we are now using the most recent global data set which covers at least 5 years. There are other advantages to using the version 5 MODIS data, such as improved spatial resolution, and robust data validation, which are discussed below.

There was strong agreement among the peer reviewers that higher resolution satellite imagery would be an important improvement over the 1-km resolution data used in the proposed rule analysis. Higher spatial resolution is especially useful in categorizing highly fragmented landscapes. One of the reviewers hypothesized that land use change driven by biofuel production would likely involve large parcels of land, and thus 1-km resolution may be sufficient. However, all of the reviewers agreed that higher resolution data would be preferable. A number of the peer reviewers specifically said that the version 5 MODIS data set, with 500 meter resolution, would be adequate. With four-times higher spatial resolution than version 4, the peer reviewers anticipated that the 500m imagery would classify less area of "mixed class" land, thus providing a more detailed representation of the land in that category. Consistent with the peer reviewer's recommendations and with our goal to use the best available information, our analysis was updated with the higher resolution version 5 MODIS data.

Related to the issue of spatial resolution, the peer review experts were asked whether they would recommend augmenting our global analysis with even higher resolution data for specific regions where there is a high degree of agricultural land use change. All of the peer reviews agreed that this type of analysis would be worthwhile. In response to this recommendation, we analyzed select geographic regions *(e.g.,* Brazil, India) with the higher resolution 30m Landsat data set covering 2000–2005. The Landsat data set does not currently provide global coverage, thus it was not an option for use in the full analysis; instead, it was used as a way to check/validate the appropriateness of the version 5 MODIS imagery. In general, the higher resolution data showed similar land use change patterns as the MODIS data. The results of this analysis are discussed further in Chapter 2 of the RIA.

Another issue that we invited comments on was the re-classification of the MODIS data from 17 land cover categories into 6 aggregated categories (e.g., open and closed shrubland were both re-classified as shrubland). The category aggregation was intended to remove unnecessary complexity from the analysis. All five expert reviewers agreed that the methodology used to re-classify land cover categories using International Geosphere-Biosphere Programme (IGBP) land definitions was

sound; however, the reviewers recommended inclusion of more than 6 aggregated land categories. The reviewers specifically recommended the addition cropland/natural vegetation mosaic, permanent wetlands, and barren or sparsely vegetated land, all of which are now included in our analysis. Consistent with these recommendations, there are 9 aggregate land categories in our revised analysis: barren, cropland, excluded (e.g., urban, ice, water bodies), forest, grassland, mixed (i.e., cropland/natural vegetation mosaic), savanna, shrubland and wetland. These land cover categories capture all significant types of land affected by agricultural land use changes. As described below in Section V.B.2.b.iii, we also estimated carbon sequestrations for all of these land categories. The impact of adding these land categories to our analysis is discussed further in RIA Chapter 2.

Another important addition to our analysis was consideration of the types of land affected by changes in pasture area, and the interaction of pasture land with cropland. In the proposed rule, we made a broad assumption that the total land area used for pasture would stay the same in each country or region. Thus, in the proposed rule, we assumed that any crop expansion onto pasture would necessarily require an equal amount of pasture to be replaced on forest or shrubland. We received a large number of comments questioning these assumptions, and the expert peer reviewers encouraged us to develop a better representation of the interactions between cropland and pasture land. As described above in Section V.B.2.6.i, the results from the FAPRI–CARD model are now used to determine pasture area changes in each country or region. In regions where we project that pasture and crop area both increase, the land types affected by pasture expansion are determined using the same analysis used for crop expansion. This new approach accounts for the ability of pasture to expand on to previously unused, or underutilized, grasslands and savanna. In regions where we project that crop and pasture area will change in opposite directions (e.g., crop area increases and pasture decreases) we assume that crops will expand onto abandoned pasture, and vice versa. Our analysis also now accounts for carbon sequestration resulting from crop or pasture abandonment. We used our satellite analysis, which shows the dominant ecosystems and land cover types in each region, to determine which types of ecosystems would grow back on abandoned agricultural lands in each region. More information about our analysis of pasture and abandoned agricultural land are provided in RIA Chapter 2.

A sub-set of the expert peer reviewers recommended combining the historic satellite imagery with other information on land use change drivers (*e.g.,* transportation infrastructure, poverty rates, opportunity costs) as an additional means to estimate the types of land affected. Consideration of these types of information could potentially address two conceptual issues with the use of satellite imagery in this analysis: First, biofuel-induced land use change could affect different types of land than the generic agricultural expansion captured by the historic data; and second, future land use change patterns may differ from historic patterns. Our concerns with the first issue are allayed to some degree by one of the peer reviewers who observed, "While it is theoretically possible that the changes in land use resulting from biofuel production occur in ecosystems or regions that would not be the ones affected by other drivers, this doesn't appear very likely." [170] Furthermore, the economic drivers of land use change are to a large degree captured by the economic models that are used in our analysis. For example, the FAPRI–CARD model considers economic drivers in its projections of where and how much crop production will change as a result of specifically biofuel-induced changes. The second issue is also addressed to some degree by the FAPRI–CARD model which includes baseline forecasts of future international agricultural, economic and demographic conditions. Furthermore, as discussed above, we used the most recently available satellite data sets in order to capture the most current land use change drivers. Thus, while we think that these issues are currently addressed to a scientifically justifiable degree for the purposes of this analysis, we recognize that these are areas for future investigation, and we have tried to capture the uncertainty from these factors in uncertainty and sensitivity analyses as described below.

While EPA has made significant improvements to the methodology in response to peer review comments, the use of satellite data for forecasting land use changes is a key area of uncertainty in the analysis. To facilitate substantive comments on the impact of uncertainty in international land use changes, and how to address the uncertainty, the proposed rule highlighted areas of uncertainty and included multiple sensitivity analyses. For example, we presented a range of lifecycle results assuming at the high-end that all land conversion caused deforestation and at the low-end that biofuels would cause no deforestation. Further, EPA sought input on this issue in public hearings and workshops, and expert feedback through the independent peer review. The feedback we received, both from experts and the public, overwhelmingly supported a more systematic analysis of the uncertainty in using satellite data to project biofuel-induced land use change patterns. Additionally, commenters recommended more data validation, especially regarding the satellite imagery. To respond to these comments, we incorporated satellite imagery validation and conducted a Monte Carlo analysis of the MODIS satellite data using assessments provided by NASA to quantitatively evaluate the uncertainty in our application of satellite imagery.

One benefit of using the MODIS data set is that it is routinely and extensively validated by NASA's MODIS land validation team. NASA uses several validation techniques for quality assurance and to develop uncertainty information for its products. NASA's primary validation technique includes comparing the satellite classifications to data collected through field and aircraft surveys, and other satellite data sensors. The accuracy of the version 5 MODIS land cover product was assessed over a significant set of international locations, including roughly 1,900 sample site clusters covering close to 150 million square kilometers. The results of these validation efforts are summarized in a "confusion matrix" which compares the satellite's land classifications with the actual land types observed on the ground. We used this information to assess the accuracy and systematic biases in the published MODIS data. In general, the validation process found that MODIS version 5 was quite accurate at distinguishing forest from cropland or grassland. However, the satellite was more likely; for example, to confuse savanna and shrubland because these land types can look quite similar from space.

Using the data validation information from NASA about which types of land MODIS tends to confuse which each other, our Monte Carlo analysis was able to account for systematic misclassifications in the MODIS data set. Therefore, part of the Monte Carlo analysis can be viewed as a way to correct and reduce the inaccuracies in the MODIS data. After this correction is performed, the uncertainty in the satellite data is no longer solely a

[170] Peer Review Report, Emissions from Land Use Change due to Increased Biofuel Production: Satellite Imagery and Emissions Factor Analysis, July 31, 2009, p. 2.

function of the accuracy of the satellite. Instead, the sizes of the standard errors for each classification are also a function of the sample sizes in the data validation exercise. For example, if NASA validated every pixel on Earth, the corrected data set would be 100% accurate, even if the original satellite data were only 50% accurate. Similarly, although NASA reports that the overall accuracy of the MODIS version 5 land cover data set is approximately 75%, the standard errors after the Monte Carlo procedure are less than 5% for each aggregate land category. These standard errors were used to quantify the uncertainty added by the satellite data used in our analysis. This procedure and the results are described in more detail in Chapter 2 of the RIA.

It should be noted that our assessment of satellite data uncertainty did not try to fully quantify the uncertainty of using historical data to make future projections about the types of land that would be affected internationally. As noted above, we think it is reasonable to assume that in general, recent land use change patterns will continue in the future absent major economic or land use regime shifts caused, for example, by changes in government policies. Thus, our uncertainty assessment provides a reasonable estimate of the variability in land use change patterns absent any fundamental shifts in the factors that affect land use patterns. However, our uncertainty assessment does not attempt to fully quantify the probability of major shifts in land use regimes, such as the implementation of effective international policies to curb deforestation.

Some of the peer reviewers recommended a satellite imagery analysis approach known as change detection, instead of the "differencing" approach used in the Winrock analysis. However, there was disagreement among the peer reviewers on this point, with one peer reviewer saying that thematic differencing between land cover maps generated for two specific dates, as conducted in this study, provides the best approach for detecting and analyzing land use pattern changes globally. In general terms, the differencing method employed by Winrock compared global land cover maps from 2001 and 2007 to evaluate the pattern of land use change during this period. Thus, the differencing method shows all of the land that changed categories, as well as all of the land that stayed the same over this period. For change detection, instead of using comprehensive land cover maps, the data set only shows land categories that changed. One advantage of change detection is that it is better suited to capture the sequential nature of land use changes, e.g., a forest could be converted to savanna, then grassland and then cropland. The differencing method that we employed lends itself more readily to comprehensive global analysis, data validation, and uncertainty assessment. Given the timeframe and priorities for our analysis, we think that the differencing method provides the best approach available at this time. However, we will continue to consider alternative analytical techniques, such as change detection, for use as part of periodic updates to this analysis.

Some of the peer reviewers recommended additional alternative technical approaches for satellite data and land use change analysis. For example, some of the reviewers recommended the use of satellite imagery to identify specific crop-types and rotations, and one reviewer suggested that EPA develop a new interactive spatial model. The Summary and Analysis of Comments document includes discussion of these and other technical comments and recommendations that are not covered here.

iii. GHG Emissions Associated With Conversion

(1) Domestic Emissions

GHG emissions impacts due to domestic land use change are based on GHG emissions the FASOM model generates in association with land type conversions projected in the model. In the proposed rule analysis, estimates of land use change emissions were limited to conversion between different types of agricultural land (*e.g.,* cropland, fallow cropland, pasture). The analysis did not allow for the addition of new domestic agricultural land.

In response to feedback EPA received during the public comment period and based on commitments EPA made in the NPRM, several changes and additions have augmented the analysis of domestic land use change GHG emissions since the proposed rule analysis. The addition of the forest land types and the interaction between cropland, pastureland, forestland, and developed land to the FASOM model provides a more complete emissions profile due to domestic land use change (*see* Section V.B.4.b.ii). We have updated soil carbon accounting based on new available data. Lastly, the methodology now captures GHG emission streams over time associated with discrete land use changes.

For agricultural soils, FASOM models GHG emissions associated with changes in crop production acreage and with changes in crop type produced. FASOM generates soil carbon factors for cropland and pasture according to IPCC Agriculture, Forestry, and Other Land Use (AFOLU) Guidelines. In the proposed rule, we committed to updating FASOM soil carbon accounting for agriculture. Per our commitment, we have updated FASOM soil carbon accounting for cropland and pasture using the latest DAYCENT modeling from Colorado State University.

In the proposed rule, EPA committed to incorporate the forestry sector and the GHG emission impacts due to the land use interactions between the domestic agricultural and forestry sectors into the FASOM analysis. We received comment supporting the incorporation of the forestry sector. By including the forestry sector in the FASOM domestic model (see Section V.B.4.b.ii), we have incorporated GHG emission impacts associated with change in forest above-ground and below-ground biomass, forest soil carbon stocks, forest management practices (e.g. timber harvest cycles), and forest products and product emission streams over time. Forest carbon accounting in FASOM is based on the FORCARB developed by the U.S. Forest Service and on data derived largely from the U.S. Forest Service RPA modeling system.

With the changes to FASOM discussed above, we also updated the final calculation method of domestic land use change GHG emissions to account for FASOM's cumulative assessment of GHG emissions and the continuous (rather than discrete) nature of soil carbon and forest product emissions. For each category of agricultural and forestry land use emissions, we calculated the mean cumulative emissions from the initial year of FASOM modeling (2000) to 2022. Changes in agricultural and forest soil carbon and forest products have a stream of GHG emissions associated with them in addition to the initial pulse associate with a discrete instance or year of land use change. For each of these categories FASOM calculates the emissions over time associated with the mean land use change over a year. We included in total domestic land use change emissions the annualized emission streams associated with all agricultural soil, forest soil, and forest product changes included in the mean cumulative emissions (2000–2022) for 30 years after 2022.

(2) International Emissions

Based on input from the expert peer review and public comments, we incorporated new data sources and made other methodological improvements in our estimates of GHG emissions from international land conversions. Some of these modifications increased land use change GHG emissions compared to the NPRM, such as the consideration of carbon releases from drained peat soils. Other modifications, such as more conservative foregone sequestration estimates, tended to decrease land use change GHG emissions. For example, our estimates of emissions per acre of deforestation in Brazil tended to increase because of improved data on forest biomass carbon stocks in that region. However, for example, our deforestation estimates in China decreased, in part because of new data on foregone forest sequestration. The net effect of the revisions varied depending on the location and types of land use changes in each biofuel scenario. The major changes to this part of our analysis, including a quantitative uncertainty assessment, are discussed in this section.

To determine the GHG emissions impacts of international land use changes, we followed the 2006 IPCC Agriculture, Forestry, and Other Land Use (AFOLU) Guidelines.[171] We worked with Winrock, which has years of experience developing and implementing the IPCC guidelines, to estimate land conversion emissions factors, including changes in biomass carbon stocks, soil carbon stocks, non-CO_2 emissions from clearing with fire and foregone forest sequestration (i.e., lost future growth in vegetation and soil carbon). In addition to seeking comment on our analysis in the proposed rule, EPA organized public hearings and workshops, and an expert peer review specifically eliciting feedback on this part of the lifecycle analysis. All of the expert peer reviewers generally felt that our analysis followed IPCC guidelines and was scientifically justifiable; however, they did make several suggestions of new data sources and recommended areas that could benefit from additional clarification. Based on the detailed comments we received, we worked with Winrock to make a number of important revisions, which have significantly improved this part of our analysis.

The proposed rule analysis included land conversion emissions factors for 5 land categories in 314 regions across 35 of the most important countries, with a weighted average applied to the rest of the world. We augmented this analysis to provide global coverage, including emissions factors for 10 land categories in over 750 regions across 160 countries. Other significant improvements included incorporation of new data sources, emissions factors for peat soil drainage, sequestration factors for abandoned agricultural land, and a full uncertainty assessment considering every data input.

Another significant improvement in our analysis was incorporation of higher resolution soil carbon data. One of the expert peer reviewers commented that the weakest part of EPA's international emissions factor analysis for the proposed rule was the global soil carbon map that was used because of its coarse resolution. To address this comment, we incorporated the new Harmonized World Soil Database, released in March 2009. This dataset provides one square kilometer spatial resolution, which is a major improvement compared to the proposed rule analysis. This dataset also includes an updated soil map of China that the peer reviewers recommended. Using this updated soil carbon data, the change in soil carbon following conversion of natural land to annual crop production was estimated following the 2006 IPCC guidelines. When land is plowed in preparation for crop production the soil loses carbon over time until a new equilibrium is established. To calculate soil carbon emissions the IPCC approach considers both tillage practices and agricultural inputs. Some of the peer reviewers expressed concern with our annual soil carbon change estimates, which assumed a constant rate of change over 20 years. However, for analytical timeframes greater than 20 years, such as used in our lifecycle analysis, the peer reviewers agreed that the our approach was scientifically justifiable. More information about soil carbon stock estimates is available in Chapter 2 of the RIA.

The expert peer reviewers generally agreed that EPA's estimate of forest carbon stocks followed IPCC guidelines and used the best available data. They did, however, recommend that the analysis could be updated with improved forest biomass maps as they become available. Consistent with these suggestions, we incorporated improved forest biomass maps for regions where they were available. More information about the specific data sources used is available in RIA Chapter 2.

In addition to estimating forest carbon stocks for each region, EPA's analysis also includes estimates of annual forest carbon uptake. When a forest is cleared the future carbon uptake from the forest is lost; this is known as foregone forest sequestration. In the proposed rule, to estimate annual forgone forest sequestration, we used IPCC default data for the growth rates of forests greater than 20 years old. The expert peer reviewers noted that these estimates could be refined with more detailed information from the scientific literature. Many of the public commenters were also concerned that EPA's approach overestimated foregone sequestration because it did not adequately account for natural disturbances, such as fires and disease. To address these comments, our analysis has been updated with peer reviewed studies of long-term growth rates for both tropical and temperate forests. These estimates are based on long-term records (i.e., monitoring stations in old-growth forests for the tropics and multi-decadal inventory comparisons for the temperate regions) and reflect all losses/gains over time. These studies show that the old-growth forests in the tropics that many once assumed to be in "steady state" (i.e., carbon gains equal losses) are in fact still gaining carbon. In summary, our analysis now includes more conservative foregone forest sequestration estimates that account for natural gains and losses over time. More information about these estimates is provided in RIA Chapter 2.

Another consideration when estimating GHG emissions resulting from deforestation is that some of the wood from the cleared forest can be harvested and used in wooden products, such as a table, that retain biogenic carbon for a long period of time. Some commenters argued that consideration of the use of harvested wood in products would decrease land use change emissions and reduce the impacts of biofuel production. As part of analysis for the proposed rule, we investigated the share of cleared forest biomass that is typically used in harvested wood products (HWP). However, we did not account for this factor in the proposed rule after it was determined that HWP would have a very small impact on the magnitude of land use change emissions. A number of commenters expressed concern that we did not account for HWP, and they argued that HWP would be more significant than we had determined. However, in response to specific questions on this topic, all of the expert

[171] 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4, Agriculture, Forestry and Other Land Use (AFOLU). See *http://www.ipcc-nggip.iges.or.jp/public/2006gl/vol4.html.*

peer reviewers agreed that EPA had properly accounted for HWP and other factors (e.g., land filling) that could prevent or delay emissions from land clearing. One of the peer reviewers noted that forests converted to croplands are generally driven by interests unrelated to timber, and thus the trees are simply burned and exceptions are probably of minor importance. To study this issue further, we looked at FAO timber volume estimates for 111 developing countries, and published literature on the share of harvested timber used in wood products and the oxidation period for wood products, such as wood-based panels and other industrial roundwood. Consistent with the peer reviewers' statements, our analysis concluded that even in countries with high rates of harvested timber utilization, such as Indonesia, a very small share of harvested forest biomass would be sequestered in HWP for longer than 30 years. The details of our HWP analysis are discussed further in RIA Chapter 2. This is an area for further work, but based on our analysis, and the feedback from expert commenters, we do not expect that consideration of HWP would have a significant impact on the magnitude of GHG emissions from international deforestation in our analysis. Furthermore, the range of outcomes from consideration of HWP is indirectly captured in our assessment of forest carbon stock uncertainty, which is described below.

The land conversion emissions estimates used in our analysis consider the carbon stored in crop biomass. In the proposed rule, we used the IPCC default biomass sequestration factor of 5 metric tons of carbon per hectare for annual crops, and applied this value to all crops globally. The final rule analysis now distinguishes between annual and perennial crops, with separate sequestration estimates for sugarcane and oil palm determined from the scientific literature. The peer reviewers suggested approaches to refine our biomass carbon estimates for different types of annual crops, e.g., for corn versus soybeans. However, we determined that adding crop-specific biomass sequestration estimates would have a very small impact on our results, because in general annual cropland carbon stocks range only from 3 to 7 tons per hectare and the average would likely be very close to the IPCC default factor currently applied. This is an area for future work, but we are confident that it would have very small impact. Furthermore, the range of potential outcomes is captured in the uncertainty analysis described below.

Other issues that were covered in the expert peer review and public comments included EPA's carbon stock estimates for grasslands, savanna, shrublands and wetlands, and our assumptions about which regions use fire to clear land prior to agricultural expansion. There is less data available for these parameters relative to some of the other issues discussed above, e.g., forest carbon stocks. Therefore, we worked to use expert judgment to derive global estimates for these parameters. In general, the peer reviewers thought that EPA's approach to these issues was reasonable and scientifically justifiable. Some of the peer reviewers recommended more resource-intensive techniques to refine some of our estimates. For example, regarding the issue of clearing with fire, one of the peer reviewers suggested that we could review fire events in the historical satellite data to estimate where fire is most commonly used. We carefully considered these suggestions, but did not make significant revisions to our analysis of these issues. Our review concluded that given the timeframe and goals of our analysis, the approach used in the proposed rule was most appropriate. We recognize that these are areas for future work, and we will consider new data as part of periodic updates. Furthermore, our uncertainty analysis, described below, considered the fact that these are areas where less data is available.

Other improvements in our analysis included the addition of emissions from peat soil drainage in Indonesia and Malaysia, and sequestration factors for abandoned agricultural land. Consistent with the expert peer reviewers' recommendations, we considered a number of recent studies to estimate average carbon emissions when peat soils are drained in Indonesia and Malaysia (the countries where peat soil is sometimes drained in preparation for new agricultural production). To estimate annual sequestration on abandoned agricultural land we used our foregone sequestration estimates and other data from IPCC. More information about these estimates is available in RIA Chapter 2.

As discussed in Section V.A.2, the uncertainty of land use change emissions is an important consideration in EPA's threshold determinations as part of this rulemaking. We conducted a full assessment of the uncertainty in international land use change emissions factors consistent with 2006 IPCC guidance.[172] This analysis considers the uncertainty in the every parameter used in our emissions factor estimates. Standard deviations for each parameter were estimated based on the quality and quantity of the underlying data. For example, in our analysis the standard errors (as a percent of the mean) tend to be smallest for forest carbon stocks in Brazil, because a large amount of high quality/resolution data was considered to estimate that parameter. Standard errors are largest for parameters that were estimated by scaling other data, or applying IPCC defaults, e.g., savanna carbon stocks in Yemen. More detail about our estimate of parameter uncertainty is available in RIA Chapter 2.

Following IPCC guidance, the uncertainties in the individual parameters of an emission factor can be combined using either error propagation methods (IPCC Tier 1) or Monte Carlo simulation (IPCC Tier 2). We used the Tier 2 Monte Carlo simulation method for this analysis. Monte Carlo is a method for analyzing uncertainty propagation by randomly sampling from the probability distributions of model parameters, calculating the results of the model from each sample, and characterizing the probability of the outcomes. An important consideration for Monte Carlo analysis is the treatment of correlation, or dependencies, among parameter errors. Strong positive correlation among parameter errors will result in greater overall uncertainty. As a simplified example, if the errors in our forest carbon stock estimates are positively correlated, then if we are overestimating forest carbon in one region we are likely overestimating forest carbon in every region. We worked with Winrock to estimate the degree of correlation among variables—both the correlation of one variable across space as well as the correlation of one variable to any others used in the analysis. This was done by considering dependencies in the underlying data used to estimate each parameter. For example, our forest carbon stock estimates are correlated across Russia because they were derived from one biomass map covering Russia. However, forest carbon stocks in Russia are not correlated with China, because they were derived from separate biomass maps. This partial correlation approach tended to reduce the overall uncertainty

[172] 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 1: General Guidance and Reporting, Chapter 3: Uncertainties, available at *http://www.ipcc-nggip.iges.or.jp/public/2006gl/vol1.html.*

associated with GHG emissions factor data.

The information about the uncertainty in each parameter and the degree of correlation across parameters was utilized in Monte Carlo analysis to determine the overall uncertainty in our emissions factor estimates. We used the Monte Carlo simulation to combine the emissions factor and satellite data uncertainty for every biofuel scenario analyzed. Uncertainty ranges varied across scenarios depending on the types and locations of land use changes. For example, based on the sources of uncertainty analyzed, the 95% confidence range for land use change emissions (as a percent of the mean) was −27% to +32% for base yield corn ethanol in 2022, and −56% to +76% for base yield soy biodiesel in 2022.[173] More details about this uncertainty analysis are provided in RIA Chapter 2.

iv. Timeframe of Emission Analysis

Based on input from the expert peer review and public comments, EPA has chosen to analyze lifecycle GHG emissions using a 30 year time period, over which emissions are not discounted, i.e., a zero discount rate is applied to future emissions. The input we received and the reasons for our use of this approach are described in this section.

As required by EISA, EPA must determine whether biofuels reduce GHG emissions by the required percentage relative to the 2005 petroleum baseline. In the proposal the Agency discussed a number of accounting methods for capturing the full stream of GHG emissions and benefits over time. When accounting for the time profile of lifecycle GHG emissions, two important assumptions to consider are: (1) The time period considered and (2) the discount rate (which could be zero) applied to future emissions streams. At the time of proposal, EPA requested public comment on the choice of time frames and discounting approaches for purposes of estimating lifecycle GHG emissions. Also, as part of the peer review process, EPA requested comment from expert peer reviewers on the choice of the appropriate time frames and discount rates for the RFS2 analysis. Below is a summary of the comments we received on these issues and how we address them in our analytical approach.

Time Period for Analysis: In the proposed rule, EPA highlighted two time periods, 30 years and 100 years, for consideration in our lifecycle analysis. The Agency discussed the relative advantages of these, and other, time periods. In addition, the Agency sought comment on whether it is appropriate to split the time period for GHG emissions assessment based upon how long the biofuel would be produced (i.e., the "project" period) and the time period for which there would likely be GHG emissions changes (i.e., the "impact" period). To encourage expert and public comments on these issues, EPA held public hearings and workshops and sponsored an expert peer review specifically focused on this topic. The expert input and comments that we received included many valuable points which guided our decisions about which time frame should be the focus of our analysis. Below we summarize some of the key arguments made by the peer reviewers and commenters, and how these arguments factored into our choice of analytical approach.

The expert peer reviewers discussed a number of justifiable time periods ranging from 13 to 100 years for assessing lifecycle GHG emissions. A subset of the reviewers said that EPA's analysis should be restricted to 2010–2022 based on the years specified in EISA, because these reviewers argued that EPA should not assume that biofuel production will continue beyond 2022 at the RFS2 levels. The reviewers said that longer time frames, such as 100 years, were only appropriate if the Agency used positive discount rates to value future emissions. Almost all of the peer reviewers said that a time frame of 20 to 30 years would be a reasonable timeframe for assessing lifecycle GHG emissions. They gave several reasons for why a short time period is appropriate: This time frame is the average life of a typical biofuel production facility; future emissions are less certain and more difficult to value, so the analysis should be confined insofar as possible to the foreseeable future; and a near-term time horizon is consistent with the latest climate science that indicates that relatively deep reductions of heat-trapping gasses are needed to avoid catastrophic changes due to a warming climate. The peer reviewers suggested that while there is no unassailable basis for choosing a precise timeframe the expected average lifetime of a biofuel production facility is the "most sensible anchor" for the choice of a timeframe.

There was support in the public comments for both the 30 year and 100 year time frames. A number of public commenters supported the use of a 30 year time period, or less, and made arguments similar to those of the expert peer reviewers. They argued that shorter time periods give more weight to the known, more immediate, effects of biofuel production and that use of longer time periods gives more weight to activities that are much more uncertain, and that the 100 year timeframe is inappropriate because it is much longer than the life of individual biofuel plants.

On the issue of whether to split the time period for GHG emissions analysis into the "project and "impact" periods, there was little support for the use of a split time frame for evaluating lifecycle GHG emissions by the peer reviewers or in the public comments. The peer reviewers thought that it would be difficult to find a scientific basis for determining the length of the two different time horizons. Also, splitting the time horizon would necessitate consideration of the land use changes following the end of the project time horizon such as land reversion. However, the majority of expert peer reviewers did not think it was appropriate to attribute potential land reversions, following the project time frame, to a biofuel's lifecycle.

Based upon the comments discussed above, EPA has decided to use a 30 year frame for assessing the lifecycle GHG emissions. There are several reasons why the 30 year time frame was chosen. The full life of a typical biofuel plant seems reasonable as a basis for the timeframe for assessing the GHG emissions impacts of a biofuel, because it provides a guideline for how long we can expect biofuels to be produced from a particular entity using a specific processing technology. Also, the 30 year time frame focuses on GHG emissions impacts that are more near term and, hence, more certain. We also determined that longer time periods were less appropriate because the peer reviewers recommended that they should only be used in conjunction with positive discount rates; but, for the reasons discussed below, we are using a zero discount rate in our analysis. In addition, the 30 year time frame is consistent with responses of the peer reviewers that EPA should not split the time periods for analysis, or include potential land reversions following the project time period in the biofuel lifecycle.

Discounting: In the RFS2 Proposal, EPA highlighted two principal options for discounting the lifecycle GHG emission streams from biofuels over time. The first involved the use of a 2% discount rate using the 100 year time horizon for assessing lifecycle GHG emissions streams. The second option involved using a 30 year time horizon for examining lifecycle GHG emissions

[173] The 95% confidence range indicates there is no more than a 5% chance the actual value is likely to be outside this range.

impacts. In the 30 year case, each GHG emission is treated equally through time, which implicitly assumes a zero discount rate to GHG lifecycle emissions streams. The issue of whether to discount lifecycle GHG emissions was raised as a topic that EPA sought comment on in both the peer review process and in public comments.

EPA received numerous comments on the issue of whether the Agency should be discounting lifecycle GHG emissions through time. While many of peer reviewers thought that current GHG emissions reductions should be more strongly weighted than future reductions, the peer reviewers were in general agreement that a discount rate should only be applied to a monetary unit, rather than a physical unit, such as GHG emissions. Public commenters suggested that discounting is an essential part of long term cost benefit analysis but it is not necessary in the context of the physical aggregation of lifecycle GHG emissions called for in the EISA. Further, public commenters expressed concerns that any discount rate chosen by the Agency would be based upon relatively arbitrary criteria.

After considering the comments on discounting from the peer review and the public, EPA has decided not to discount (i.e., use a 0% discount rate) GHG emissions due to the many issues associated with applying an economic concept to a physical parameter. First, it is unclear whether EISA intended lifecycle GHG emissions to be converted into a metric whose underpinnings rest on principals of economic valuation. A more literal interpretation of EISA is that EPA should consider only physical GHG emissions. Second, even if the principle of tying GHG emissions to economic valuation approaches were to be accepted, there would still be the problem that there is a lack of consensus in the scientific community about the best way to translate GHG emissions into a proxy for economic damages. Also, there is a lack of consensus as to the appropriate discount rate to apply to GHG lifecycle emissions streams through time. Finally, since EPA has decided to base threshold assessments of lifecycle GHG emissions on a 30 year time frame, the issue of whether to discount GHG emissions is not as significant as if the EPA had chosen the 100 year time frame to assess GHG emissions impacts. More discussion of discount rates and their impact on the lifecycle results can be found in Chapter 2 of the RIA.

v. GTAP and Other Models

Although we have used the partial equilibrium (PE) models FASOM and FAPRI–CARD as the primary tools for evaluating whether individual biofuels meet the GHG thresholds, as part of the peer review process, we explicitly requested input on whether general equilibrium (GE) models should be used. None of the comments recommended using a GE model as the sole tool for estimating GHG emissions, given the limited details on the agricultural sector contained in most GE models. The peer reviewers generally supported the use of the FASOM and FAPRI–CARD models for our GHG analysis given the need for additional detail offered in the PE models, however several comments suggested incorporating GE models into the analysis.

Given these recommendations, we opted to use the GTAP model to inform the range of potential GHG emissions associated with land use change resulting from an increase in renewable fuels. As discussed in the NPRM, there are several advantages to using GTAP. As a general equilibrium model, GTAP captures the interaction between different markets (e.g., agriculture and energy) in different regions. It is distinctive in estimating the complex international land use change through trade linkages. In addition, GTAP explicitly models land-use conversion decisions, as well as land management intensification. Most importantly, in contrast to other models, GTAP is designed with the framework of predicting the amount and types of land needed in a region to meet demands for both food and fuel production. The GTAP framework also allows predictions to be made about the types of land available in the region to meet the needed demands, since it explicitly represents different types of land cover within each Agro-Ecological Zone.

Like the peer reviewers, we felt that some of the drawbacks of the GTAP model prevent us from using GTAP as the sole model for estimating GHG emissions from biofuels. As discussed in the NPRM, GTAP does not utilize unmanaged cropland, nor is it able to capture the long-run baseline issues (*e.g.,* the state of the economy in 2022). For our analysis, the GTAP model was most valuable for providing another estimate of the quantity and type of land conversion resulting from an increase in corn ethanol and biodiesel given the competition for land and other inputs from other sectors of the economy. These results were therefore considered as part of the weight of evidence when determining whether corn ethanol or biodiesel met the GHG thresholds.

The quantity of total acres converted to crop land projected by FAPRI–CARD were within the range of values projected by GTAP when normalized on a per BTU basis, although there were differences in the regional distribution of these changes. The land use changes projected by GTAP were smaller than land use changes predicted by FAPRI–CARD, which is primarily due to several important differences in the modeling frameworks. First, the GTAP model incorporates a more optimistic view of intensification options by which higher prices induced by renewable fuels results in higher yields, not just for corn, but also for other displaced crops. Second, the demands for other uses of land are explicitly captured in GTAP. Therefore, when land is withdrawn from these uses, the prices of these products rise and provide a certain amount of "push-back" on the conversion of land to crops from pasture or forest. Third, none of the peer-reviewed versions of GTAP currently contain unmanaged cropland, thereby omitting additional sources of land. Finally, the GTAP model also predicted larger increases in forest conversion than the FAPRI–CARD/Winrock analysis, in part because the GTAP model includes only three types of land (i.e., crops, pasture, forest). As discussed in the FAPRI–CARD/Winrock section, there are many other categories of land which may be converted to pasture and crop land.

As with all economic models, GTAP results are sensitive to certain key parameter values. One advantage of this framework is that it offers a readily usable approach to Systematic Sensitivity Analysis (SSA) using efficient sampling techniques. We have exploited this tool in order to develop a set of 95% confidence intervals around the projected land use changes. Several key parameters were identified that have a significant impact on the land use change projections, including the yield elasticity (*i.e.,* the change in yield that results from a change in that commodity's price), the elasticity of transformation of land supply (i.e., the measure of how easily land can be converted between forest, pasture, and crop land), and the elasticity of transformation of crop land (*i.e.,* the measure of how easily land can be converted between crops). Although the confidence intervals are relatively large, in most cases the ranges do not bracket zero. Therefore, we conclude that the impacts of the corn ethanol and soybean biodiesel mandates on land use change are statistically significant. These confidence intervals also bracket the FAPRI–CARD results. Additional

information on the GTAP results is discussed in RIA Chapter 2.

c. Feedstock Transport

To estimate the GHG impacts of transporting corn from the field to an ethanol production facility and transporting the co-product DDGS from the ethanol facility to the point of use, we used the method described in the proposed rule. We also did not change our estimates for the transport of cellulosic biofuel feedstock and biomass-based diesel feedstock.

For sugarcane transport, we received the comment that the GREET defaults used to estimate the energy consumption and associated GHG emissions do not all reflect current industry practices. To address this concern, we reviewed the current literature on sugarcane transport and updated our assumptions on the distance sugarcane travels by truck from the field to ethanol production facilities as well as the payload and fuel economy of those trucks. We incorporated these revised inputs into an updated version of the GREET model (Version 1.8c) in order to estimate the GHG impacts of sugarcane transport. More details on these updates can be found in Chapter 2 of the RIA.

In the proposal, we discussed updating our analysis to incorporate the results of a recent study detailing biofuel production locations and modes of transport. This study, conducted by Oak Ridge National Laboratory, modeled the transportation of ethanol from production or import facilities to petroleum blending terminals. Since the study did not explicitly address the transport of biofuel feedstocks, we did not implement the results for this part of the analysis. However, we did incorporate the results into our assessment of the GHG impacts of fuel transportation. We will continue to examine whether our feedstock transport estimates could be significantly improved by implementing more detailed information on the location of biofuel production facilities.

We also discussed updating the transportation modes and distances assumed for corn and DDGS to account for the secondary or indirect transportation impacts. For example, decreases in exports will reduce overall domestic agricultural commodity transport and emissions but will increase transportation of commodities internationally. We did not implement these secondary transportation impacts in this final rule. While we do not anticipate that such impacts would significantly change the lifecycle analysis, we plan to continue to look at this issue and consider incorporating them in the future.

d. Biofuel Processing

For the proposal the GHG emissions from renewable fuel production were calculated by multiplying the Btus of the different types of energy inputs at biofuel process plants by emissions factors for combustion of those fuel sources. The Btu of energy input was determined based on analysis of the industry and specific work done as part of the NPRM. The emission factors for the different fuel types are from GREET and were based on assumed carbon contents of the different process fuels. The emissions from producing electricity in the U.S. were also taken from GREET and represent average U.S. grid electricity production emissions.

We received comments on our approach and updated the analysis of GHG emissions from biofuel process for the final rule specifically regarding process energy use and the treatment of co-products.

Process Energy Use: For the final rule we updated each of our biofuel pathways to include the latest data available on process energy use. For the proposal, one of the key sources of information on energy use for corn ethanol production was a study from the University of Illinois at Chicago Energy Resource Center. Between proposal and final rule, the study was updated, therefore, we incorporated the results of the updated study in our corn ethanol pathways process energy use for the final rule. We also updated corn ethanol production energy use for different technologies in the final rule based on feedback from industry technology providers as part of the public comment period. The main difference between proposal and final corn ethanol energy use values was a slight increase in energy use for the corn ethanol fractionation process, based on feedback from industry technology providers.

For the proposal we based biodiesel processing energy on a process model developed by USDA–ARS to simulate biodiesel production from the Fatty Acid Methyl Ester (FAME) transesterification process. We received a number of comments from stakeholders that the energy balance for biodiesel production was overestimating energy use and should be updated. During the comment period USDA updated their energy balance for biodiesel production to incorporate a different biodiesel dehydration process based on a system which has resulted in a decrease in energy requirements. This change was reflected in the energy use values for biodiesel assumed in our final rule analysis which resulted in reduced GHG impacts from the biodiesel production process.

In addition, for the final rule we have included an analysis of algae oil production for biodiesel based on ASPEN process modeling from NREL.[174] The analysis is for two major cultivation pathways (open pond and photobioreactors) for a facility that can be feasibly commercialized in the future, represented by a "2022" target production. We coupled the algae oil production process (which includes cultivation, harvesting, and extraction) with the biodiesel production energy use from virgin oils energy use model under the assumption that algae oil is similar enough to that of virgin oil.

For the cellulosic biofuel pathways, we updated our final rule energy consumption assumptions on process modeling also completed by NREL. For the NPRM, NREL estimated energy use for the biochemical enzymatic process to ethanol route in the near future (2010) and future (2015 and 2022).[175] [176] [177] As there are multiple processing pathways for cellulosic biofuel, we have expanded the analysis for the FRM to also include thermochemical processes (Mixed-Alcohols route and Fischer-Tropsch to diesel route) for plants which assume woody biomass as its feedstock.

Under the imported sugarcane ethanol cases we updated process energy use assumptions to reflect anticipated increases in electricity production for 2022 based on recent literature and comments to the proposal. One major change was assuming the potential use of trash (tops and leaves of sugarcane) collection in future facilities to generate additional electricity. The NPRM had only assumed the use of bagasse for electricity generation. Based on comments received, we are also assuming marginal electricity production (i.e., natural gas) instead of average electricity mix in Brazil which is mainly hydroelectricity. This approach assumes surplus electricity will likely displace electricity which is normally dispatched last, in this case

[174] Davis, Ryan. November 2009. Techno-economic analysis of microalgae-derived biofuel production. National Renewable Energy Laboratory (NREL)

[175] Tao, Ling and Aden, Andy. November 2008. Techno-economic Modeling to Support the EPA Notice of Proposed Rulemaking (NOPR). National Renewable Energy Laboratory (NREL).

[176] Aden, Andy. September 2009. Mixed Alcohols from Woody Biomass—2010, 2015, 2022. National Renewable Energy Laboratory (NREL).

[177] Davis, Ryan. August 2009. Techno-economic analysis of current technology for Fischer-Tropsch fuels. National Renewable Energy Laboratory (NREL).

typically natural gas based electricity. The result of this change is a greater credit for displacing marginal grid electricity and thus a lower GHG emissions profile for imported sugarcane ethanol than that assumed in the NPRM. We also received public comment that there are differences in the types of process fuel e.g. used in the dehydration process for ethanol. While using heavier fuels such as diesel or bunker fuel tends to increase the imported sugarcane ethanol emissions profile, the overall impact was small enough that lifecycle results did not change dramatically.

Co-Products: In response to comments received, we included corn oil fractionation and extraction as a potential source of renewable fuels for this final rulemaking. Based on research of various corn ethanol plant technologies, corn oil as a co-product from dry mill corn ethanol plants can be used as an additional biodiesel feedstock source (*see* Section VII.A.2 for additional information). Dry mill corn ethanol plants have two different technological methods to withdraw corn oil during the ethanol production process. The fractionation process withdraws corn oil before the production of the DGS co-product. The resulting product is food-grade corn oil. The extraction process withdraws corn oil after the production of the DGS co-product, resulting in corn oil that is only suitable for use as a biodiesel feedstock.

Based on cost projections outlined in Section VII.A, it is estimated that by 2022, 70% of dry mill ethanol plants will conduct extraction, 20% will conduct fractionation, and that 10% will choose to do neither. These parameters have been incorporated into the FASOM and FAPRI–CARD models for the final rulemaking analysis, allowing for corn oil from extraction as a major biodiesel feedstock.

Glycerin is a co-product of biodiesel production. Our proposal analysis did not assume any credit for this glycerin product. The assumption for the proposal was that by 2022 the market for glycerin would be saturated due to the large increase in biodiesel production in both the US and abroad and the glycerin would therefore be a waste product. We received a number of comments that we should be factoring in a co-product credit for glycerin as there would be some valuable use for this product in the market. Based on these comments we have included for the final rule analysis that glycerin would displace residual oil as a fuel source on an energy equivalent basis. This is based on the assumption that the glycerin market would still be saturated in 2022 and that glycerin produced from biodiesel would not displace any additional petroleum glycerin production. However, the biodiesel glycerin would not be a waste and a low value use would be to use the glycerin as a fuel source. The fuel source assumed to be replaced by the glycerin is residual oil. This inclusion of a co-product credit for glycerin reduces the overall GHG impact of biodiesel compared to the proposal analysis.

e. Fuel Transportation

For the proposed rule, we estimated the GHG impacts associated with the transportation and distribution of domestic and imported ethanol and biomass-based diesel using GREET defaults. We have upgraded to the most recent version of GREET (Version 1.8c) for our transportation analysis in the final rule.[178] We made several other updates to the method we utilized in the proposed rule. These updates are described here and in more detail in Chapter 2 of the RIA.

In the proposal, we noted our intention to incorporate the results of a recent study by Oak Ridge National Laboratory (ORNL) into our transportation analysis for the final rule. The ORNL study models the transportation of ethanol from refineries or import facilities to the petroleum blending terminals by domestic truck, marine, and rail distribution systems. We used ORNL's transportation projections for 2022 under the EISA policy scenario to update our estimates of the GHG impacts associated with the transportation of corn, cellulosic, and sugarcane ethanol. Since the study did not address the distribution of ethanol from petroleum blending terminals to refueling stations, we continued to use GREET defaults to estimate these impacts.

The ORNL study also did not address the transportation of imported ethanol within its country of origin or en route to the import facility in the United States. As in the proposal, we used GREET defaults to estimate the impacts associated with the transportation of sugarcane ethanol within Brazil. We updated the GREET default for the average distance sugarcane ethanol travels by ocean tanker using recent shipping data from EIA in order to account for both direct Brazilian exports and the shipment of ethanol from countries in the Caribbean Basin Initiative. We received several comments on the back-haul emissions associated with ocean transport. For the final rule, we assumed that these emissions were negligible.

f. Vehicle Tailpipe Emissions

We updated the CO_2 emissions factors for ethanol and biodiesel to be consistent with those used in the October 30, 2009 final rulemaking for the Mandatory GHG Reporting Rule. These changes caused the tailpipe GHG emission factors to increase by 0.8% for ethanol and to decrease by 1.5% for biodiesel. Specific tailpipe combustion values used in this final rule can be found in Chapter 2 of the RIA. Estimates for CH_4 and N_2O were made using outputs from EPA's MOVES model.

3. Petroleum Baseline

For the proposed rule, we conducted an analysis to determine the lifecycle greenhouse gas emissions for the petroleum baseline against which renewable fuels were to be compared. We utilized the GREET model (Version 1.8b), which uses an energy efficiency metric to calculate GHG emissions associated with the production of petroleum-based fuels. We received numerous comments regarding this approach.

Petroleum baseline calculation from proposed rule: The GREET model relies on using average values as inputs to estimate aggregate emissions, rather than using site-specific values. Commenters noted a number of GREET input values that they believed to be incorrect. These included: energy efficiency values for crude oil extraction; methane emission factors for oil production and flaring; transportation distances for crude oil and petroleum products; and the oil tanker cargo payload value. Commenters also noted that GREET does not account for the energy consumption associated with crude oil transport in the country of extraction.

In addition, commenters stated that the crude oil import slate assumed in the proposed rule was inconsistent with EIA crude oil production and import data for 2005. Commenters also noted that the gasoline and diesel mix that we used for the proposal did not match with EIA prime supplier sales volume data. One specific comment focused on the definition of low-sulfur diesel in GREET, where it is defined as being 11 ppm sulfur content, which is inconsistent with EPA's definition. As a result, in the proposed rule, all transportation diesel produced in 2005 was assumed to be ultra-low sulfur diesel.

[178] The method used to estimate the GHG impacts associated with biodiesel transportation has not been changed since the proposal. This method utilized an earlier version of the GREET model.

We largely agree with the above comments. An updated version of the GREET model (Version 1.8c) is available, and it may address some of the issues raised by commenters. We considered using this new version of GREET with updated input values from publically available sources to determine the petroleum baseline for the final rule. However, we have decided that using the 2005 petroleum baseline model developed by the National Energy Technology Laboratory (NETL)[179] would address the commenters' concerns, and result in a more accurate and comprehensive assessment of the petroleum baseline than we could obtain using the GREET model.

Use of NETL study for final rule petroleum baseline calculation: In the proposed rule, we requested comment on using the NETL study for our 2005 petroleum baseline for the final rulemaking. We only received one comment, which agreed that the NETL values were generally more accurate and better documented than the values in GREET. However, the commenter also stated that NETL's use of 2002 crude oil extraction data would underestimate extraction emissions for 2005, and that it would be inconsistent to use the GREET model for determining GHG emissions from biofuels, but not for petroleum.

We do not agree with the commenters' criticism of the NETL model. We have not seen data that indicates that the GHG emissions associated with crude oil extraction would be appreciably different in 2005 than 2002. EPA also believes that it is important to use the best available tools to estimate a petroleum baseline that can be compared to renewable fuels. The fact that some GREET emission factors are used in the calculation of biofuel lifecycle GHG impacts is not a reason to use the GREET model for the petroleum baseline analysis over what we feel to be a better tool for the baseline calculation needed.

NETL states that the goal of their study is to "determine the life cycle greenhouse gas emissions for liquid fuels (conventional gasoline, conventional diesel, and kerosene-based jet fuel) production from petroleum as consumed in the U.S. in 2005 to allow comparisons with alternative transportation fuel options on the same basis (*i.e.,* life cycle modeling assumptions, boundaries, and allocation procedures)." Unlike GREET, the NETL study utilized site-specific data, such as country-specific crude oil extraction profiles and port-to-port travel distances for imported crude oil and petroleum products. The NETL model also accounts for NGLs and unfinished oils as refinery inputs, which is not available in GREET.

Thus, we believe that use of the NETL model addresses the commenters' concerns with the GREET inputs used in the proposed rule. We have also verified that the NETL model uses a crude oil input mix and gasoline and diesel product slate consistent with EIA data for 2005.

For the final rule, we have also updated the CO_2 emissions factors to be consistent with other EPA rulemakings. EPA recently revised the CO_2 emission factors for gasoline and diesel and used them in the September 28, 2009 proposed rule to establish GHG standards for light-duty vehicles. These new factors are slightly lower than those used in the RFS2 proposal and result in a decrease in tailpipe GHG emissions of 0.4% for gasoline of 0.6% and for diesel.

Overall, with the switch to NETL and the updated tailpipe values, the final petroleum baseline value calculated for the final rule analysis does not differ significantly from what we calculated in the proposed rule.

Inclusion of estimate for land use change: Numerous commenters raised the issue of land use change with regard to oil production, both on a direct and indirect basis. The proposed rule analysis for baseline petroleum emissions did not consider any land use change emissions associated with crude oil extraction. For the final rule, we do not consider land use emissions associated with road or other infrastructure construction for petroleum extraction, transport, refining, or upgrading, as the land use change associated with roads constructed for crop and livestock production was also not included. Furthermore, land use associated with natural gas extracted for use in oil sands extraction or upgrading was also not considered, as the land use change from natural gas extracted for biofuels production was not considered.

However, for the final rule we did consider the inclusion of land use emissions associated with oil extraction. Using estimates for land-use change from conventional oil production and oil sands in conjunction with our data for the carbon intensity of land being developed, we were able to determine GHG emissions associated with land use change for oil production. Our analysis showed that the value was negligible compared to the full petroleum lifecycle. More detail on this analysis can be found in Chapter 2 of the RIA.

Consideration of marginal impacts: We received several comments stating that we did not use consistent system boundaries in our comparisons of biofuels and petroleum-based fuels, in particular by using a marginal assessment of GHG emissions related to biofuel, but not doing so for baseline petroleum fuels. According to commenters, by not assessing the marginal impacts of petroleum production, we overestimated the GHG impacts of an increase in biofuel use in the proposed rule. Commenters argued that a consistent modeling approach would involve a marginal analysis for both biofuels and the petroleum baseline.

The reason the system boundaries used for threshold assessment in the proposed rule and the final rule did not include a marginal analysis of petroleum production was due to the definition of "baseline lifecycle greenhouse gas emissions" in Section 211(o)(1)(C) of the CAA. The definitions of the different renewable fuel categories specify that the lifecycle threshold analysis be compared to baseline lifecycle greenhouse gas emissions, which are defined as:

> The term 'baseline lifecycle greenhouse gas emissions' means the average lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, for gasoline or diesel (whichever is being replaced by the renewable fuel) sold or distributed as transportation fuel in 2005.

Therefore, the petroleum production component of the system boundaries is specifically mandated by EISA to be based on the 2005 average for crude oil used to make gasoline or diesel sold or distributed as transportation fuel, and not the marginal crude oil that will be displaced by renewable fuel. Furthermore, as the EISA language specifies that the baseline emissions are to be only "average" lifecycle emissions for this single specified year and volume, it does not allow for a comparison of alternative scenarios. Indirect effects can only be determined using such an analysis; therefore there are no indirect emissions to include in the baseline lifecycle greenhouse gas emissions.

On the other hand, assessing the lifecycle GHG emissions of renewable fuel is not tied by statute to the 2005 baseline and could therefore be based on a marginal analysis of anticipated changes in transportation fuel as would result from meeting the EISA mandates.

[179] Department of Energy: National Energy Technology Laboratory. 2009. NETL: Petroleum-Based Fuels Life Cycle Greenhouse Gas Analysis—2005 Baseline Model.

Thus, Congress did not, as many commenters suggested, intend to accomplish simply a reduction in GHG emissions as compared to the situation that would exist in the future without enactment of EISA, as would be the case if Congress had specified that EPA use a marginal analysis in assessing the GHG emissions related to conventional baseline fuels that the EISA-mandated biofuels would replace. Rather, the statute specifies a logical approach for reducing the GHG emissions of transportation fuel as compared to those emissions that occurred in 2005. Therefore, EPA has retained in today's final rule the basic analytical approach (marginal analysis for biofuels and 2005 average for baseline fuels) used in the proposed rule.

C. Threshold Determination and Assignment of Pathways

As required by EISA, EPA is making a determination of lifecycle GHG emission threshold compliance for the range of pathways likely to produce significant volumes of biofuel for use in the U.S. by 2022. These threshold assessments only pertain to biofuels which are not produced in production facilities that are grandfathered (grandfathering of production facilities is discussed at the end of Section V.C).

As described in Section I.A.3, because of the inherent uncertainty and the state of the evolving science on this issue, EPA is basing its GHG threshold compliance determinations for this rule on an approach that considers the weight of evidence currently available. For fuel pathways with a significant land use impact, the evidence considered includes the best estimate as well as the range of possible lifecycle greenhouse gas emission results based on formal uncertainty and sensitivity analyses conducted by the Agency. In making the threshold determinations for this rule, EPA weighed all of the evidence available to it, while placing the greatest weight on the best estimate value for the base yield scenario. In those cases where the best estimate for the potentially conservative base yield scenario exceeds the reduction threshold, EPA judges that there is a good basis to be confident that the threshold will be achieved and is determining that the bio-fuel pathway complies with the applicable threshold. To the extent the midpoint of the scenarios analyzed lies further above a threshold for a particular biofuel pathway, we have increasingly greater confidence that the biofuel exceeds the threshold.

EPA recognizes that the state of scientific knowledge in this area is continuing to evolve, and that as the science evolves, the lifecycle greenhouse gas assessments for a variety of fuel pathways will continue to change. Therefore, while EPA is making regulatory determinations for fuel pathways as required by the statute in this final rule based on its current assessment, EPA is at the same time committing to further reassess these determinations and the lifecycle estimates. As part of the ongoing effort, we will ask for the expert advice of the National Academy of Sciences as well as other experts and then reflect this advice and any updated information in a new assessment of the lifecycle GHG emission performance of the biofuels being evaluated today. EPA will request that the National Academy of Sciences evaluate the approach taken in this rule, and the underlying science of lifecycle assessment and in particular indirect land use change, and make recommendations for subsequent rulemakings on this subject. This new assessment could in some cases result in new determinations of threshold compliance compared to those included in this rule which would apply to future production from plants that are constructed after each subsequent rule.

Nonetheless, EPA is required by EISA to make threshold determinations at this time as to what fuels qualify for each of the four different fuel categories and lifecycle GHG thresholds. In the previous sections, we have described the analytical basis EPA is using for its lifecycle GHG assessment. These analyses represent the most up to date information currently available on the GHG emissions associated with each element of the full lifecycle assessment. Notably these analyses include an assessment of uncertainty for key parameters of the pathways evaluated. The best estimates and ranges of results for the different pathways can be used to help assess whether a particular pathway should be considered as attaining the 20%, 50% or 60% thresholds, as applicable. The graphs included in the discussion below provide representative depictions of the results of our analysis (including the uncertainty in the modeling) for typical pathways for corn ethanol, biodiesel produced from soy oil and from waste oils, fats and greases, sugarcane ethanol and cellulosic biofuel from switchgrass. We have also conducted lifecycle modeling assessments for cellulosic biofuel pathways using other feedstock sources, for biobutanol and for two specific pathways for emerging biofuels that would use oil from algae as their feedstock. Additional GHG performance assessment results for other feedstock/fuel/technology combinations are also described below as well as in the RIA Chapter 2.

Below we consider the analytical results of scenarios and fuel pathways modeled by EPA as well as additional appropriate information to determine the threshold compliance for an array of biofuels likely to be produced in 2022.

Ethanol from corn starch: While EPA analyzed the lifecycle GHG performance of a variety of ethanol from corn starch pathways (complete results can be found in the RIA), for purposes of this threshold determination we have focused the discussion on the impacts of those plant designs that are most likely to be built in the future. We have focused this discussion on new plant designs because production from existing plants is grandfathered for purposes of compliance with the 20% lifecycle GHG threshold. Only new plants and expanded capacity at existing plants need to comply with a 20% lifecycle GHG emissions threshold to comply with the total renewable fuel mandate under the RFS2.

While we focus our lifecycle GHG threshold analysis on the new plant designs most likely to be built through 2022, we also note that some existing plant designs, although subject to the grandfathering provisions, would not qualify if having to meet the 20% performance threshold. For example, existing designs of ethanol plants using coal as their process heat source would not qualify.

As discussed in Section IV, EPA anticipates that by 2022 any new dry mill plants producing ethanol from corn starch will be equipped with more energy efficient technology and/or enhanced co-product production than today's average plant. These predictions are largely based on economic considerations. To compete economically, future ethanol plants will need to employ energy saving technologies and other value added technologies that have the effect of also reducing their GHG footprint. For example, while only in limited use today, we predict approximately 90% of all plants will be producing corn oil as a by-product either through a fractionation or extraction process; it is likely most if not all new plants will elect to include such technology. We also predict that all will use natural gas, biomass or biogas as the process energy

source.[180] [181] We also expect that, to lower their operating costs, most facilities will sell a portion of their co-product DGS prior to drying thus reducing energy consumption and improving the efficiency and lifecycle GHG performance of the plant. The current national average plant sells approximately 37% of the DGS co-product prior to drying.

In analyzing the corn ethanol plant designs we expect could be built through 2022 using natural gas or biomass for process energy and employing advanced technology, in all cases, the midpoint and therefore the majority of the scenarios analyzed are above the 20% threshold. This indicates that, based on the current modeling approaches and sets of assumptions, we are over 50% confident the actual GHG performance of the ethanol from new corn ethanol plants will exceed the threshold of 20% improvement in lifecycle GHG emissions performance compared to the gasoline it is replacing.

We are determining at this time that the corn ethanol produced at such new plants (and existing plants with expanded capacity employing the same technology) will exceed the 20% GHG performance threshold. A complete listing of complying facilities using advanced technologies and operating procedures is included in Table V.C–6.

Figure V.C–1 shows the percent change in the lifecycle GHG emissions compared to the petroleum gasoline baseline in 2022 for a corn ethanol dry mill plant using natural gas for its process energy source, drying the national average of 63% of the DGS it produces and employing corn oil fractionation technology. Lifecycle GHG emissions equivalent to the gasoline baseline are represented on the graph by the zero on the X-axis. The 20% reduction threshold is represented by the dashed line at −20 on the graph. The results for this corn ethanol scenario are that the midpoint of the range of results is a 21% reduction in GHG emissions compared to the gasoline 2005 baseline. The 95% confidence interval around that midpoint ranges from a 7% reduction to a 32% reduction compared to the gasoline baseline.

[180] Dry mill corn ethanol plants using coal as a process energy source would not qualify as exceeding the 20% reduction threshold as modeled. We do not expect plants relying on coal for process energy to be built through 2022. However, if they were built, they would need to use technology improvements such as carbon capture and storage (CCS) technology. We did not model what the performance would be if these plants also installed CCS technology.

[181] We do not believe new wet mill corn ethanol plants will be built through 2022 since this design is much more complicated and expensive than a dry mill plant. Especially since dry mill plants equipped with corn oil fractionation will produce additional supplies of food grade corn oil (one of the products and therefore reasons to construct a wet mill plant), we see no near term incentive for additional wet mill ethanol production capacity. However, we have modeled the lifecycle GHG impact of ethanol produced at a wet mill plant when relying on biomass as the process energy source and have determined it would meet the 20% GHG threshold. Therefore, this type of facility is also included in Table V.C–6.

Figure V.C-1

Distribution of Results for a New Natural Gas Fired Corn Ethanol Plant

Average 2022 plant: natural gas, 63% dry, 37% wet DGS (w/ fractionation)

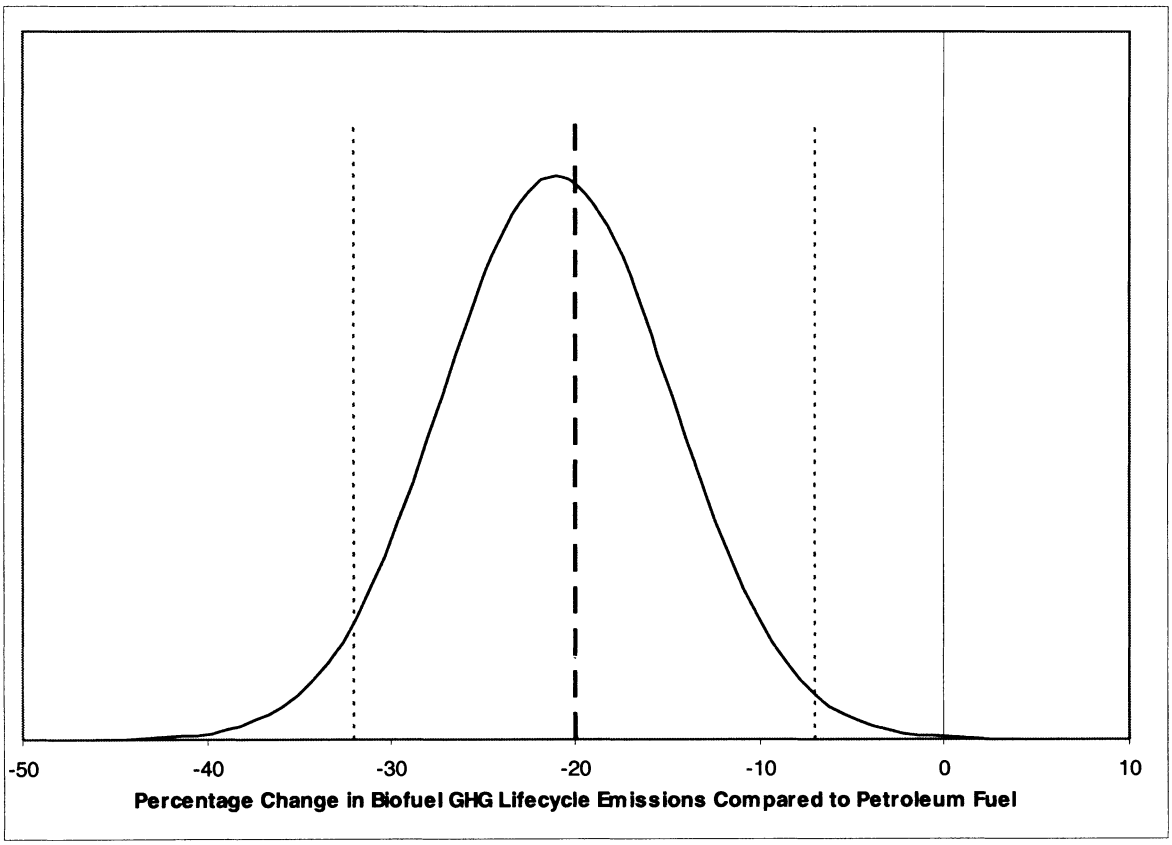


Table V.C–1 below includes lifecycle GHG emissions broken down by several stages of the lifecycle impacts for a natural gas dry mill corn ethanol facility as compared to the 2005 baseline average for gasoline. This table (and similar tables which follow in the discussion for other biofuels) is included to transparently demonstrate the contribution of each stage and their relative significance. Lifecycle emissions are normalized per energy unit of fuel produced and presented in kilograms of carbon-dioxide equivalent GHG emissions per million British Thermal Units of renewable fuel produced (kg CO_2e/mmBTU). The domestic and international agriculture rows include emissions from changes in agricultural production (*e.g.,* fertilizer and energy use, rice methane) and livestock production. The fuel production row includes emissions from the fuel production or refining facility, primarily from energy consumption. For renewable fuels, tailpipe emissions only include non-CO_2 gases, because the carbon emitted as a result of fuel combustion is offset by the uptake of biogenic carbon during feedstock production. Note, that while the table separates the emissions into different categories, the results are based on integrated modeling; therefore, one component can not be removed without impacting the other results. For example, domestic land use and agricultural sector emissions depend on the international assumptions. If a case without international impacts were modeled, the domestic results would likely be significantly different.

The table includes our mean estimate of international land use change emissions as well as the 95% confidence range from our uncertainty assessment, which accounts for uncertainty in the types of land use changes and the magnitude of resulting GHG emissions. The last row includes mean, low and high total lifecycle GHG emissions based on the 95% confidence range for land use change emissions. For the petroleum baseline, the fuel production stage includes emissions from extraction, transport, refining and distribution of petroleum transportation fuel. Petroleum tailpipe emissions include CO_2 and non-CO_2 gases emitted from fuel combustion.

TABLE V.C–1—LIFECYCLE GHG EMISSIONS FOR CORN ETHANOL, 2022

[kg CO_2e/mmBTU]

Fuel type	Ethanol	2005 Gasoline baseline
Fuel Production Technology	Natural Gas Fired Dry Mill	
Net Domestic Agriculture (w/o land use change)	4	
Net International Agriculture (w/o land use change)	12	
Domestic Land Use Change	−2	
International Land Use Change, Mean *(Low/High)*	32 *(21/46)*	
Fuel Production	28	19
Fuel and Feedstock Transport	4	
Tailpipe Emissions	1	79
Total Emissions, Mean *(Low/High)*	79 *(54/97)*	98

While we are projecting technology enhancements which would allow corn ethanol plants to exceed the threshold, plant designs which do not include such advanced technology would not comply. For example, a basic plant which is not equipped with combinations of advanced technologies such as corn oil fractionation or dries more than 50% of its DGS is predicted to not comply. While we do not expect such a basic, low technology plant to be built nor existing plants to expand their production without also installing such advanced technology, if this were to occur, ethanol produced at such facilities would not comply with the 20% threshold.

Biodiesel from soybean oil: We analyzed the lifecycle GHG emission impacts of producing biodiesel using soy oil as a feedstock for compliance with a lifecycle GHG performance threshold of 50%. The modeling framework for this analysis was much the same as used for the proposal. However, as noted above, based on comments, updated information and enhanced models, the results are significantly updated.

As in the case of ethanol produced from corn starch, EPA has relied on a weight of evidence in developing its threshold assessment for biodiesel produced from soybean oil. In analyzing the base yield case, the midpoint and therefore the majority of the scenarios analyzed exceed the threshold. This indicates that based on currently available information and our current analysis over the range of scenarios considered, the actual performance of soy oil-based biodiesel likely exceeds the applicable 50% threshold.

The scenarios analyzed also indicate, based on current data, we are at least 95% confident biodiesel produced from soy oil will have GHG impacts which are better than the 2005 baseline diesel fuel. From a GHG impact perspective, we therefore conclude that even in the less likely event the actual performance of biodiesel from soy oil does not exceed the 50% threshold, GHG emission performance of transportation fuel would still improve if this biodiesel replaced diesel fuel.

We are further confident that biodiesel exceeds the 50% threshold since our assessment of biodiesel GHG performance does not include any prediction of significant improvements in plant technology or unanticipated energy saving improvements that would further improve GHG performance. Additionally, our assumption that the co-product of glycerin would only have GHG value as replacement for residual heating oil could be conservative. While we have not analyzed the range of potential uses of glycerin, potential uses of glycerin including as a feedstock to the chemical industry could be higher in GHG benefit than its assumed use as a heating fuel.

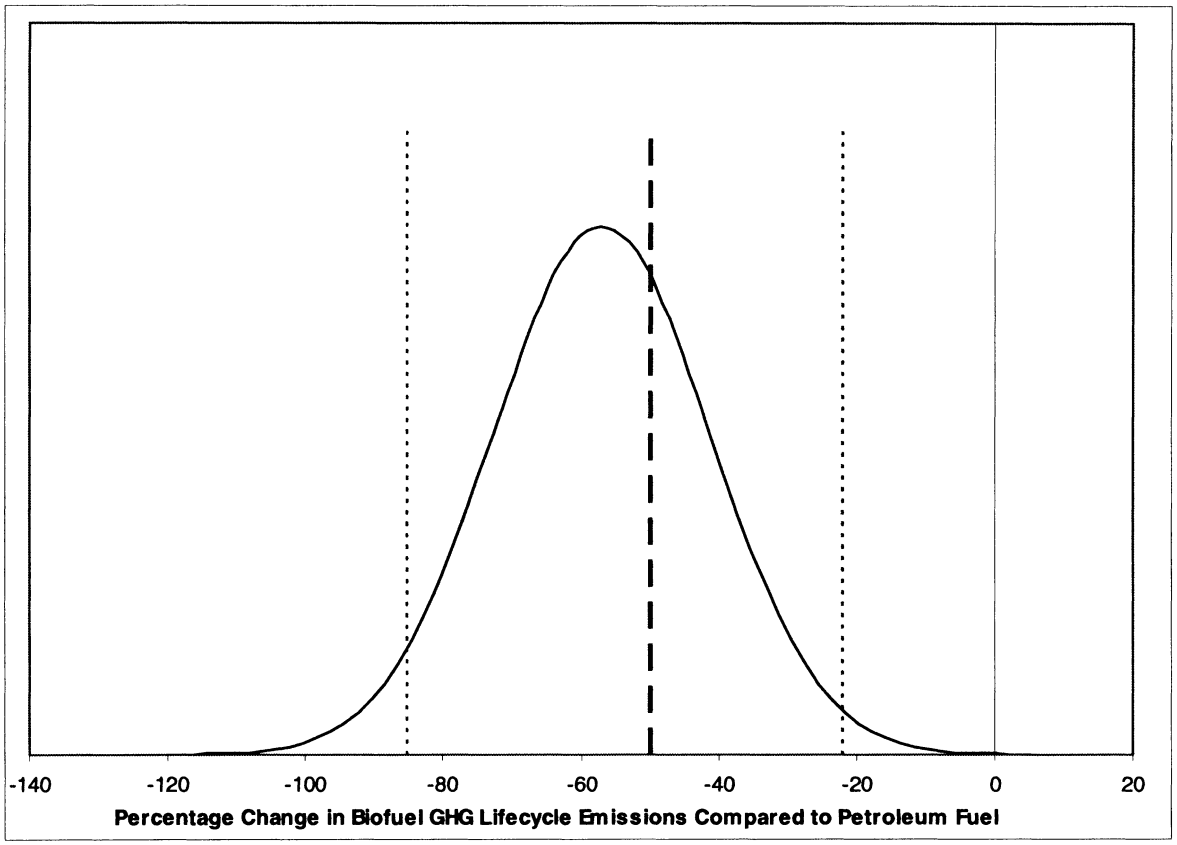
Considering all of the above current information and analyses, EPA concludes that biodiesel made from soy oil will exceed its lifecycle GHG threshold. Further, we see no benefit in lowering the threshold to as low as 40% as allowed under EISA as this will neither benefit available supply nor GHG performance of the fuel. Therefore, the threshold for this rule will be maintained at 50%.

Figure V.C–2 shows the percent change in the typical 2022 soybean biodiesel lifecycle GHG emissions compared to the petroleum diesel fuel 2005 baseline. Lifecycle GHG emissions equivalent to the diesel fuel baseline are represented on the graph by the zero on the X-axis. The 50% reduction threshold is represented by the dashed line at −50 on the graph. The results for soybean biodiesel are that the midpoint of the range of results is a 57% reduction in GHG emissions compared to the diesel fuel baseline. The 95% confidence interval around that midpoint results in range of a 22% reduction to an 85% reduction compared to the diesel fuel 2005 baseline.

Figure V.C-2

Distribution of Results Soybean Biodiesel

Average 2022 plant; natural gas



Biodiesel from waste oils, fats and greases: The lifecycle assessment of GHG performance for biodiesel produced from waste oils, fats and greases is much simpler than comparable assessments for biofuels made from crops. In the case of biodiesel made from waste material, there is no land use impact so the agricultural assessments required for crop-based biofuels are unnecessary. Without the uncertainty concerns due to land use impacts, there was no need to conduct an uncertainty analysis for biodiesel from waste oils, fats and greases. The assessment methodology for biofuel from waste oils fats and greases is much the same as that analyzed for the proposal. As was the case for the proposal, the assessment of each element in the lifecycle process is straight forward and includes collecting and transporting the feedstock, transforming it into a biofuel and distributing and using the fuel. Based on the lifecycle assessment for this final rule, we are estimating biofuel from waste oils, fats and greases result in an 86% reduction in GHG emissions compared to the 2005 baseline for petroleum diesel. As was the case for the assessment included in the proposal, biofuel from these feedstock sources easily exceeds the applicable threshold of 50%.

Table V.C–2 below breaks down by stage the lifecycle GHG emissions for soy-based biodiesel, biodiesel from waste grease feedstocks and the 2005 diesel baseline. The average 2022 biodiesel production process reflected in this table assumes that natural gas is used for process energy and accounts for co-product glycerin displacing residual oil. This table demonstrates the contribution of each stage and their relative significance.

TABLE V.C–2—LIFECYCLE GHG EMISSIONS FOR BIODIESEL, 2022

[kg CO_2e/mmBTU]

Fuel type	Soy-based biodiesel	Waste grease biodiesel	2005 Diesel baseline
Net Domestic Agriculture (w/o land use change)	−10	0	
Net International Agriculture (w/o land use change)	1	0	
Domestic Land Use Change	−9	0	
International Land Use Change,			
Mean (*Low/High*)	43 (*15/76*)	0	

TABLE V.C–2—LIFECYCLE GHG EMISSIONS FOR BIODIESEL, 2022—Continued

[kg CO_2e/mmBTU]

Fuel type	Soy-based biodiesel	Waste grease biodiesel	2005 Diesel baseline
Fuel Production	13	10	18
Fuel and Feedstock Transport	3	3	
Tailpipe Emissions	1	1	79
Total Emissions, Mean (*Low/High*)	42 (*14/76*)	14	97

Biodiesel from algae oil: We analyzed the lifecycle GHG emission impacts of producing biodiesel from algae oil as a feedstock for compliance with a lifecycle performance threshold of 50%. Our analyses were based on technoeconomic modeling completed by NREL, as previously discussed. The NREL modeling included algae cultivation, harvesting, extraction, and recovery of algae oil. Algae oil is further assumed to use the same oil to biodiesel production technology as soy oil, which was updated based on enhanced models. As algae are expected to be grown on relatively small amounts of non-arable lands, it is expected that the land use impact will be negligible. Based on our current lifecycle assessment of algae oil for the final rule, we are determining that biodiesel from algae oil will comply with the lifecycle performance advanced biofuel threshold of 50%.

Ethanol from sugarcane: As is the case for other crop-based biofuels, EPA considered the weight of evidence currently available information in assessing the lifecycle GHG performance of this fuel. As noted in Section I.A.3, this lifecycle GHG assessment includes significant updates from the analysis performed for the proposal. We have added pathways for sugarcane ethanol such that we now distinguish sugarcane ethanol produced assuming most crop residue (leaves and stalks) are collected and therefore available for burning as process energy, or sugarcane produced without the extra crop residue being collected nor burned as process energy. We also analyzed pathways assuming the ethanol is distilled in Brazil or alternatively being distilled in the Caribbean. We did not analyze a "high yield" case for sugarcane as we did for corn and soy since we had no information available suggesting there could be an appreciable range in expected sugarcane yields.

Based on the currently available information, the midpoint and thus the majority of the scenarios analyzed exceed the 50% threshold applicable to advanced biofuels. This indicates that based on currently available information and our current analysis, it is more than 50% likely that the actual performance of ethanol produced from sugarcane exceeds the applicable 50% threshold.

The analyses also indicate, based on current data, ethanol produced from sugarcane will clearly have GHG impacts which are better than the 2005 baseline gasoline. From a GHG impact perspective, we therefore conclude that even in the less likely event the actual performance of sugarcane does not exceed the 50% threshold, GHG emission performance of ethanol from sugarcane would be better than gasoline.

We also considered what would happen if we determine that ethanol from sugarcane does not comply with a 50% threshold due to the relatively low risk that this biofuel will actually be below that threshold. Based on our current analysis of available pathways for producing advanced biofuel, we believe that it will be necessary to include over 2 billion gallons of sugarcane ethanol in order to meet the advanced biofuel volumes anticipated by EISA. If sugarcane ethanol was not an eligible source of advanced biofuel and other unanticipated sources did not become available, the standard for advanced biofuel would have to be lower to the extent necessary to compensate for the lack of eligible sugarcane ethanol. The lower amount of advanced biofuel would then most likely be replaced with petroleum-based gasoline. The replacement fuel would have a worse GHG performance than the sugarcane ethanol. Therefore, GHG performance of the transportation fuel pool would suffer.

Considering the above, EPA has concluded that, based on currently available information and our analysis, ethanol from sugarcane qualifies as an advanced biofuel.

Figure V.C–3 shows the percent change in the average 2022 sugarcane ethanol lifecycle GHG emissions compared to the petroleum gasoline 2005 baseline. These results assume the ethanol is produced and dehydrated in Brazil prior to being imported into the U.S. Lifecycle GHG emissions equivalent to the gasoline baseline are represented on the graph by the zero on the X-axis. The 50% reduction threshold is represented by the dashed line at −50 on the graph. The results for this sugarcane ethanol scenario are that the midpoint of the range of results is a 61% reduction in GHG emissions compared to the gasoline baseline. The 95% confidence interval around that midpoint results in a range of a 52% to 71% reduction compared to the gasoline 2005 baseline.

Figure V.C-3

Distribution of Results for Sugarcane Ethanol

Average 2022 plant: no residue collection,

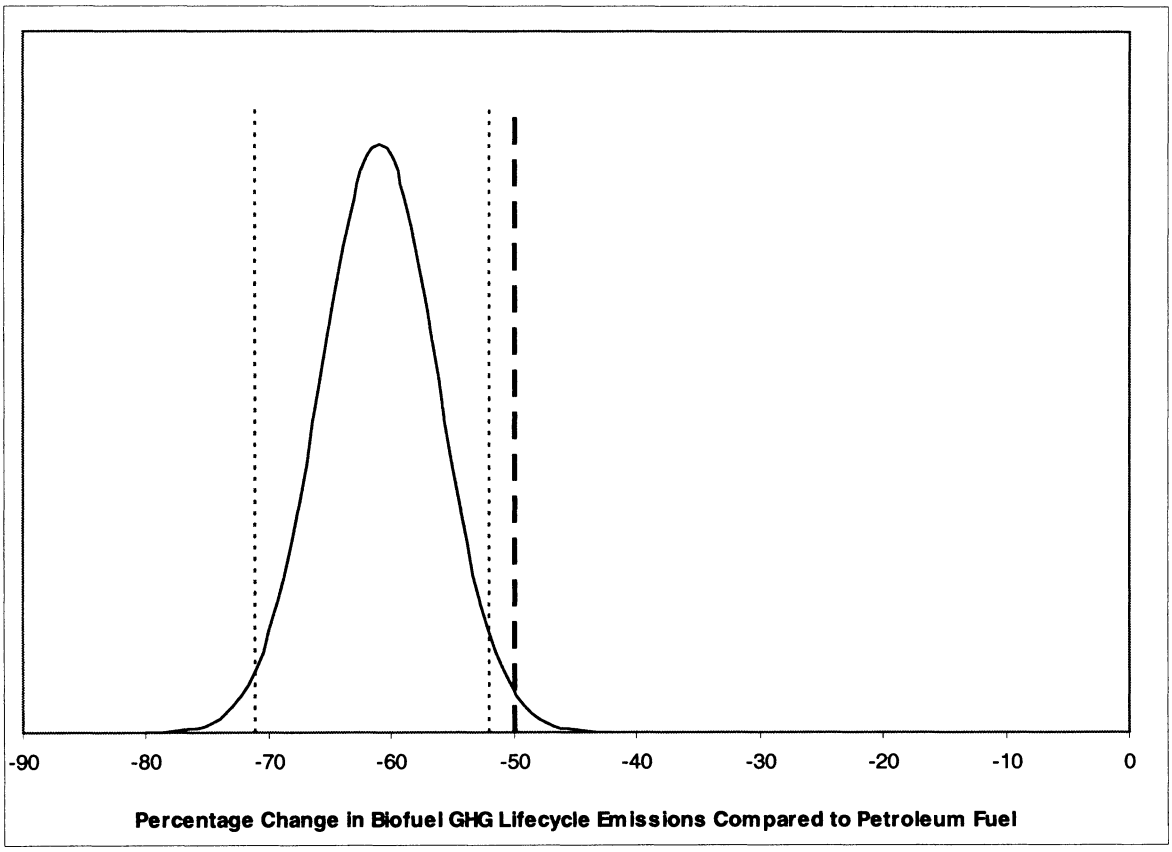


Table V.C–3 below presents results for sugarcane ethanol production and use by lifecycle stage. This table demonstrates the contribution of each stage and their relative significance. The fuel production emissions include displacement of marginal Brazilian electricity because electricity is generated with the sugarcane bagasse co-product. As in similar previous tables, domestic emissions include all emissions sources in the United States, with all other emissions—including emissions from Brazil—presented in the international categories.

TABLE V.C–3—LIFECYCLE GHG EMISSIONS FOR SUGARCANE ETHANOL, 2022

[kg CO_2e/mmBTU]

Fuel type	Sugarcane ethanol	2005 Gasoline baseline
Net Domestic Agriculture (w/o land use change)	0	0
Net International Agriculture (w/o land use change)	38	0
Domestic Land Use Change	1	0
International Land Use Change, Mean *(Low/High)*	4*(−5/12)*	0
Fuel Production	−11	19
Fuel and Feedstock Transport	5	0
Tailpipe Emissions	1	79
Total Emissions, Mean *(Low/High)*	38 *(29/46)*	98

Cellulosic Biofuels: In the proposal, we analyzed biochemical cellulosic ethanol pathways from both switchgrass and corn stover, and on that basis proposed that such cellulosic biofuels met the required 60% lifecycle threshold by a considerable margin. As described in Section V.B, we have considerably updated our lifecycle analysis, and have analyzed additional cellulosic biofuel pathways (i.e., thermochemical cellulosic ethanol and a

BTL diesel pathway). We analyzed the GHG impacts of each element of the lifecycle for producing and using biofuels from cellulosic biomass, and as for other fuel pathways, considered the range of possible outcomes.

Figure V.C–4 shows the percent change in the average lifecycle GHG emissions in 2022 for ethanol produced from switchgrass using the biochemical process compared to the petroleum gasoline 2005 baseline. Lifecycle GHG emissions equivalent to the gasoline baseline are represented on the graph by the zero on the X-axis. The 60% reduction threshold is represented by the dashed line at −60 on the graph. The results for this switchgrass ethanol scenario are that the midpoint of the range of results is a 110% reduction in GHG emissions compared to the gasoline baseline. The 95% confidence interval around that midpoint ranges from 102% reduction to a 117% reduction compared to the gasoline baseline.

Figure V.C-4

Distribution of Results for Switchgrass Biochemical Ethanol

Average 2022 plant: biochemical process producing ethanol, excess electricity production

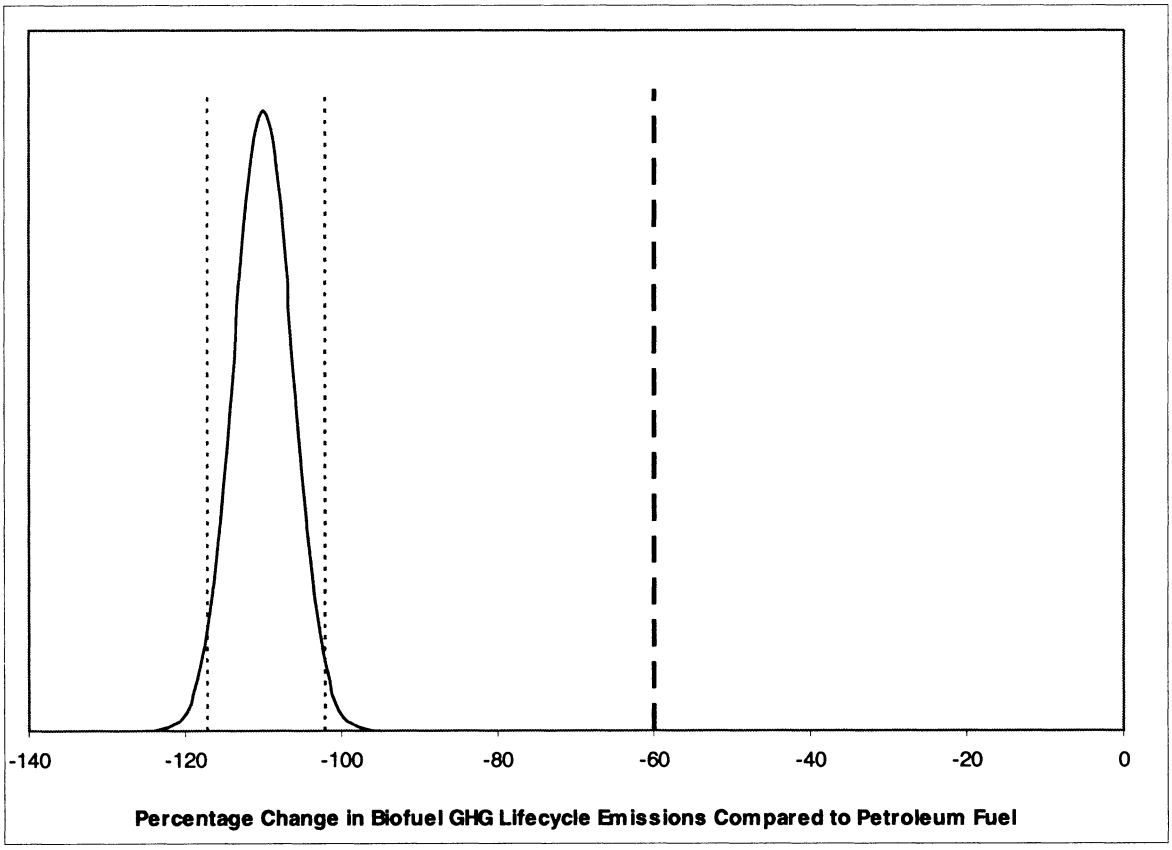


Table V.C–4 below shows lifecycle GHG emissions for cellulosic ethanol produced from switchgrass (as depicted in Figure V.C–4, above) and also corn residue by lifecycle stage, comparing these to the 2005 baseline gasoline. This table is included to demonstrate the contribution of each stage and their relative significance. Results are presented for the biochemical production technology depicted in Figure V.C–4 above and also for thermochemical production technologies. The fuel production emissions for the biochemical pathway include credit for excess electricity generation at the fuel production facility.

TABLE V.C–4—LIFECYCLE GHG EMISSIONS FOR CELLULOSIC ETHANOL, 2022

[kg CO_2e/mmBTU]

Fuel type	Switchgrass ethanol		Corn residue		2005 Gasoline baseline
Fuel production technology	Bio-chemical	Thermo-chemical	Bio-chemical	Thermo-chemical	
Net Domestic Agriculture (w/o land use change)	6	6	11	11	0

TABLE V.C–4—LIFECYCLE GHG EMISSIONS FOR CELLULOSIC ETHANOL, 2022—Continued

[kg CO_2e/mmBTU]

Fuel type	Switchgrass ethanol		Corn residue		2005 Gasoline baseline
Fuel production technology	Bio-chemical	Thermo-chemical	Bio-chemical	Thermo-chemical	
Net International Agriculture (w/o land use change)	0	0	0	0	0
Domestic Land Use Change	−2	−3	−11	−11	0
International Land Use Change, Mean *(Low/High)*	15 *(9/23)*	16 *1(9/24)*	0	0	0
Fuel Production	−33	4	−33	4	19
Fuel and Feedstock Transport	3	3	2	2	0
Tailpipe Emissions	1	1	1	1	79
Total Emissions, Mean *(Low/High)*	−10 *(−17/−2)*	27 *(20/35)*	−29	7	98

Table V.C–5 below presents lifecycle GHG emissions for cellulosic diesel produced with a Fischer-Tropsch process by lifecycle stage.

TABLE V.C–5—LIFECYCLE GHG EMISSIONS FOR CELLULOSIC DIESEL, 2022

[kg CO_2e/mmBTU]

Fuel type	Switchgrass diesel	Corn residue diesel	2005 Diesel baseline
Fuel production technology	F–T diesel	F–T diesel	
Net Domestic Agriculture (w/o land use change)	6	11	0
Net International Agriculture (w/o land use change)	0	0	0
Domestic Land Use Change	−3	−11	0
International Land Use Change, Mean *(Low/High)*	16 *(9/24)*	0	0
Fuel Production	5	5	18
Fuel and Feedstock Transport	3	2	0
Tailpipe Emissions	1	1	79
Total Emissions, Mean *(Low/High)*	29 *(22/37)*	9	97

Based on the currently available information, we conclude that all modeled cellulosic biofuel pathways are expected to exceed the 60% threshold applicable to cellulosic biofuels.

Assessments of similar feedstock sources: In the proposal, we indicated that although we did not specifically analyze all potential feedstock sources, some feedstock sources are similar enough to those modeled that we believe the modeled results could be extended to these similar feedstock types. Comments received supported this approach and the specific recommendations for similar feedstock designations as proposed.

For this final rule, consistent with what was proposed, we are relying on modeling results and only expanding to additional pathways where we have good information these additional pathways will have lifecycle GHG results which either will not impact our overall assessment of the performance of that fuel pathway or would have at least as good as the modeled pathways. The agricultural sector modeling used for our lifecycle analysis does not predict any soybean biodiesel or corn ethanol will be imported into the U.S., or any imported sugarcane ethanol from production in countries other than Brazil. However, these rules do not prohibit the use in the U.S. of these fuels produced in countries not modeled if they are also expected to comply with the eligibility requirements including meeting the thresholds for GHG performance. Although the GHG emissions of producing these fuels from feedstock grown or biofuel produced in other countries has not been specifically modeled, we do not anticipate their use would impact our conclusions regarding these feedstock pathways. The emissions of producing these fuels in other countries could be slightly higher or lower than what was modeled depending on a number of factors. Our analyses indicate that crop yields for the crops in other countries where these fuels are also most likely to be produced are similar or lower than U.S. values indicating the same or slightly higher GHG impacts. Agricultural sector inputs for the crops in these other countries are roughly the same or lower than the U.S. pointing toward the same or slightly lower GHG impacts. If crop production were to expand due to biofuels in the countries where the models predict these biofuels might additionally be produced, this would tend to lower our assessment of international indirect impacts but could increase our assessment of the domestic (i.e., the country of origin) land use impacts. EPA believes, because of these offsetting factors along with the small amounts of fuel potentially coming from other countries, that incorporating fuels produced in other countries will not impact our threshold analysis. Therefore, fuels of the same fuel type, produced from the same feedstock using the same fuel production technology as modeled fuel pathways will be assessed the same GHG performance decisions regardless of country of origin.

We are also able to conclude that some feedstock types not specifically modeled should be covered as we have good reason to believe their performance would be better than the feedstock pathways modeled. Thus for example, we can conclude that, as in the case of corn stover which we have modeled as a feedstock source, cellulosic biofuel produced from other agricultural waste will also have no land use impact and would be expected to

have lifecycle GHG emission impacts similar enough to the modeled corn stover feedstock pathway such that they would also comply. Similarly, we have information on miscanthus indicating that this perennial will yield more feedstock per acre than the modeled switchgrass feedstock without additional GHG inputs such as fertilizer. Therefore we are concluding that since cellulosic biofuel from switchgrass complies with the cellulosic threshold of 60% reduction, fuel produced using miscanthus and other perennial grasses will also surely comply.

We are also determined that biofuel from separated yard and food wastes (which may contain incidental and post-recycled paper and wood wastes) satisfy biofuel thresholds. Separated food waste is largely starch-based and thus qualifies for the advanced biofuel standard of 50% reduction. If the biofuel producer can demonstrate that it is able to quantify the cellulosic portion of food wastes, fuel made from the cellulosic portion can qualify as cellulosic biofuel. Since we have determined that yard wastes are largely cellulosic, biofuel from yard waste will qualify as cellulosic biofuel. The use of separated yard and food wastes for biofuel production including the requirements for demonstrating what portion of food waste is cellulosic feedstock is discussed further in Section II.B.4.d. EPA believes that renewable fuel produced from feedstocks consisting of wastes that would normally be discarded or put to a secondary use, and which have not been intentionally rendered unfit for productive use, should be assumed to have little or no land use emissions of GHGs. The use of wastes that would normally be discarded does not increase the demand for land. For example, the use in biofuel production of food waste from a food processing facility that would normally be placed in a landfill will not increase the demand for land to grow the crops that were purchased by the food processing facility. Similarly, wastes that would not normally be discarded because there are alternative secondary uses for them (for example contaminated vegetable oil might be burned in a boiler) are not produced for the purpose of such secondary use and the use of these feedstocks also does not increase demand for land. Since these waste-derived feedstocks have little or no land use impact, the lifecycle GHG emissions associated with their use for biofuel production are largely the result of the energy required to collect and process the feedstock prior to conversion, and the energy required to convert that feedstock into a biofuel. This has led us to conclude it is reasonable to include a restricted set of additional feedstocks in pathways complying with the applicable threshold.

The look-up table identifies a number of individual fuel "pathways" that allow for the use of waste feedstocks. These feedstocks include (1) waste ethanol from beverage production, (2) waste starches from food production and agricultural residues, (3) waste oils/fats/greases, (4) waste sugar from food and beverage production, and (5) food and beverage production wastes. For the purpose of this rule only, EPA will consider these feedstocks to be "wastes" if they are used as feedstock to produce fuel, but would otherwise normally be discarded or used for another secondary purpose because they are no longer suitable for their original intended use. They may be unsuitable for their original intended use either because they are themselves waste from that original use (e.g., table scraps) or because of contamination, spoilage or other unintentional acts. EPA will not consider any material that has been intentionally rendered unsuitable for its original use to be a "waste."

As discussed in more detail in Section II.B.4.d, EPA has also determined that the biogenic portion of post recycled MSW is eligible to produce renewable fuel and will largely be made up of cellulosic material. Therefore biofuel made from this waste-derived material will qualify as cellulosic biofuel.

EPA has also considered biofuels produced from annual cover crops such as cover crops grown in the winter. These annual cover crops are normally planted as a rotation between primary planted crops or between trees and vines in orchards and vineyards, typically to protect soil from erosion, improve the soil between periods of regular crops, or for other conservation purposes. For annual cover crops grown on the same land as the primary crops, we have determined that there is little or no land use impact such that the GHG emissions associated with them would largely result due to inputs required to grow the crop, harvesting and transporting to the biofuel production facility, turning that feedstock into a biofuel and transporting it to its end use. As such, the biofuel from cellulosic biomass from annual cover crops are, for example, determined to meet requirements of cellulosic biofuel, oil from annual cover crops are determined to meet the requirements of renewable diesel and starches from annual cover crops are determined to meet the requirements of advanced biofuel.

While we have not been able to model all possible feedstocks that can and are being used for renewable fuel production, there are a variety of feedstocks that should have similar enough characteristics to those already modeled to allow them to be grouped in with already modeled fuel pathways. In particular, as discussed below, there are five categories of biofuel feedstock sources for which we are confident, by virtue of their lack of any land-use change impact, in qualifying them for particular renewable fuel standards (D-codes) on the basis of our existing modeling.

1. All crop residues which provide starch or cellulosic feedstock. By virtue of the fact that they do not cause any land-use change impacts, they should all have similar lifecycle GHG impacts. Thus, modeling conducted for corn stover is being extended to other crop residues such as wheat straw, rice straw, and citrus residue. These residues are what remains after a primary crop is harvested, and can be similarly collected, transported and used in biofuel production.

2. Slash, forest thinnings, and forest residue providing cellulosic feedstock. As excess material, these represent another form of residue which should also result in no land-use change GHG impacts. Their GHG emission impacts would only be associated with collection, transport, and processing into biofuel. Consequently, modeling conducted for corn stover is also being extended to these residues.

3. Annual cover crops planted on existing crop land such as winter cover crops and providing cellulosic material, starch or oil for biofuel production. While different from crop residues, these secondary crops also have no land use impact since they are planted on land otherwise used for primary crop production. GHG emissions would only be associated with growing, harvesting and transporting the secondary crop and then processing into biofuel. In the case of secondary crops that might be used for cellulosic biofuel production, they would also have no land-use change impact, and consequently modeling conducted for corn stover is also being extended to these crops. In the case of secondary crops used for oil production, they would then have no land-use change similar to waste fats, oils and greases. Consequently, modeling conducted for biodiesel and renewable diesel from these waste oils is also being extended to these annual cover crops.

4. Separated food and yard wastes, including food and beverage wastes

from food production and processing are another category of waste product that would not have any land-use change impact. These waste products can be used as feedstock for advanced biofuel production or cellulosic biofuel production. Waste oils have already been modeled as complying with the biomass-based diesel standard. Applying our sugarcane results without the land-use change component to waste sugars clearly demonstrates compliance with the advanced biofuel threshold. Applying our corn results without the land-use component to waste starches clearly demonstrates compliance with the renewable fuel standard

5. Perennial grasses including switchgrass and miscanthus. We modeled switchgrass and miscanthus has higher yield per acre without any significant (or perhaps less) inputs such as fertilizer per acre. We believe other perennial grasses likely to compete as feedstock sources will have similar land use and agricultural inputs are therefore confident the results from switchgrass can be extended to miscanthus and other perennial grasses. However, we note that the energy crop industry is just starting to develop and therefore as favored perennial grasses start to emerge, additional analyses may be warranted.

Applicable D-Codes for Fuel Pathways: Based on the above, corn ethanol facilities using natural gas or biomass as the process energy source will meet the applicable 20% GHG performance threshold if it either also uses at least two of the technologies Table V.C–6 or one of the technologies in Table V.C–6 but marketing at least 35% of its DGS as wet. Alternatively, a facility using none of the advanced technologies listed in Table V.C–6 will qualify as producing ethanol meeting the 20% performance threshold if it sells at least 50% of its DGS prior to drying.

TABLE V.C–6—MODELED ADVANCED TECHNOLOGIES

Corn oil fractionation
Corn oil extraction
Membrane separation
Raw starch hydrolysis
Combined heat and power

Following the criteria for D-Codes defined in Section II.A–1, the following renewable fuel pathways have been found to comply with the applicable lifecycle GHG thresholds and are therefore eligible for the D-Codes specified in Table V.C–7.

TABLE V.C–7—D-CODE DESIGNATIONS

Fuel type	Feedstock	Production process requirements	D-Code
Ethanol	Corn starch	All of the following: Drymill process, using natural gas, biomass or biogas for process energy and at least two advanced technologies from Table V.C–6).	6 (renewable fuel)
Ethanol	Corn starch	All of the following: Dry mill process, using natural gas, biomass or biogas for process energy and one of the advanced technologies from Table V.C–6 plus drying no more than 65% of the DGS it markets annually.	6 (renewable fuel)
Ethanol	Corn starch	All of the following: Dry mill process, using natural gas, biomass or biogas for process energy and drying no more than 50% of the DGS it markets annually.	6 (renewable fuel)
Ethanol	Corn starch	Wet mill process using biomass or biogas for process energy.	6 (renewable fuel)
Ethanol	Starches from agricultural residues; starches from annual cover crops.	Fermentation using natural gas, biomass or biogas for process energy.	6 (renewable fuel)
Biodiesel, and renewable diesel	Soy bean oil; Oil from annual cover crops Algal oil Biogenic waste oils/fats/greases; Non-food grade corn oil.	One of the following: Trans-Esterification. Hydrotreating. Excluding processes that coprocess renewable biomass and petroleum.	4 (biomass-based diesel)
Biodiesel, and renewable diesel	Soy bean oil; Oil from annual cover crops Algal oil Biogenic waste oils/fats/greases; Non-food grade corn oil.	One of the following: Trans-Esterification. Hydrotreating. Includes only processes that coprocess renewable biomass and petroleum.	5 (Advanced)
Ethanol	Sugarcane	Fermentation (Any)	5 (Advanced)
Ethanol	Cellulosic Biomass from agricultural residues, slash, forest thinnings, forest product residues, annual cover crops, switchgrass and miscanthus; cellulosic components of separated yard wastes; cellulosic components of separated food wastes; and cellulosic components of separated MSW.	Any	3 (Cellulosic Biofuel)

TABLE V.C–7—D-CODE DESIGNATIONS—Continued

Fuel type	Feedstock	Production process requirements	D-Code
Cellulosic Diesel, Jet Fuel and Heating Oil.	Cellulosic Biomass from agricultural residues, slash, forest thinnings, forest product residues, annual cover crops, switchgrass and miscanthus; cellulosic components of separated yard wastes, cellulosic components of separated food wastes, and cellulosic components of separated MSW.	Any	7 (Cellulosic Biofuel or Biomass-Based Diesel)
Butanol	Corn starch	Fermentation; dry mill using natural gas, biomass or biogas for process energy.	6 (renewable fuel)
Cellulosic Naphtha	Cellulosic Biomass from agricultural residues, slash, forest thinnings, forest product residues, annual cover crops, switchgrass and miscanthus; cellulosic components of separated yard wastes, cellulosic components of separated food wastes, and cellulosic components of separated MSW.	Fischer-Tropsch process	3 (Cellulosic Biofuel)
Ethanol, renewable diesel, jet fuel, heating oil, and naphtha.	The non-cellulosic portions of separated food wastes.	Any	5 (Advanced)
Biogas	Landfills, sewage and waste treatment plants, manure digesters.	Any	5 (Advanced)

Pathways for which we have not made a threshold compliance decision: The pathways identified in the Table V.C–6 represent those pathways we have analyzed and determined meet the applicable thresholds as establish by EISA. We did not analyze all pathways that might be feasible through 2022. In some cases, we did not have sufficient time to complete the necessary lifecycle GHG impact assessment for this final rule. In addition to the pathways identified in Table V.C–6, EPA anticipates modeling grain sorghum ethanol, woody pulp ethanol, and palm oil biodiesel after this final rule and including the determinations in a rulemaking within 6 months. Based on current and projected commercial trends and the status of current analysis at EPA, biofuels from these three pathways are either currently being produced or are planned production in the near-term. Our analyses project that they will be used in meeting the RFS2 volume standard in the near-term. During the course of the NPRM comment period, EPA received detailed information on these pathways and is currently in the process of analyzing these pathways. We have received comments on several additional feedstock/fuel pathways, including rapeseed/canola, camelina, sweet sorghum, wheat, and mustard seed, and we welcome parties to utilize the petition process described below to request EPA to examine additional pathways.

In other cases, we have not modeled the lifecycle GHG performance of pathways because we did not have sufficient information. For those fuel pathways that are different than those pathways EPA has listed in today's regulations, EPA is establishing a petition process whereby a party can petition the Agency to consider new pathways for GHG reduction threshold compliance. The petition process is meant for parties with serious intention to moved forward with production via the petitioned fuel pathway and who have moved sufficiently forward in the business process to show feasibility of the fuel pathway's implementation. The Agency will not consider frivolous petitions with insufficient information and clarity for Agency analysis. In addition, if the petition addresses a fuel pathway that already complies for one or more types of renewable fuels under RFS (e.g., renewable fuel or advanced biofuel), the pathway must have the potential to result in the pathway qualifying for a new renewable fuel category for which it was not previously qualified. Thus, for example, the Agency will not undertake any additional review for a party wishing to get a modified LCA value for a previously approved fuel pathway if the desired new value would not change the overall pathway classification. EPA will process these petitions as expeditiously as possible, taking into consideration that some fuel pathways are closer to the commercial production stage than others. In all events, parties are expected to begin this process with ample lead time as compared to their commercial start dates.

In addition to the technical information described below and listed in today's regulations (see § 80.1416), a petition must include all information required in the registration process except the engineering review. The petition should demonstrate technical and commercial feasibility. For example, a petition could include copies of applications for air or construction permits, copies of blue prints of the facility, or photographs of the facility or pilot plant. The petition must include information necessary to allow EPA to effectively determine the lifecycle green house gas emissions of the fuel. The petitioner must describe the alternative production facility technology applied and supply data establishing the energy savings that will result from the use of the alternative technology. The information required would include, at a minimum, a mass and energy balance for the proposed fuel production process. This would include for example, mass inputs of raw material feedstocks and consumables, mass outputs of fuel product produced as well as co-products and waste materials production. Energy inputs information should include fuels used by type, including purchased electricity. If steam or hot water is purchased, the source and fuel required for its generation would also be reported.

Energy output information should include energy content of the fuel product produced (with heating value specified) as well as energy content of any co-products. The petitioner should also report the extent to which excess electricity is generated and distributed outside the production facility. Information on co-products should include the expected use of the co-products and their market value. All information should be provided in a format such that it can be normalized on a fuel output basis (for example, tons feedstock per gallon of fuel produced). Other process descriptions necessary to understand the fuel production process should be included (e.g., process modeling flowcharts). Any other relevant information, including that pertaining to energy saving technologies or other process improvements that document significant differences between the fuel production processes outlined in this rule and that used by the renewable fuel producer, should also be submitted with the petition.

For fuel pathways that utilize feedstocks that have not yet been modeled for this rulemaking, the petition must also submit information on the feedstock. Information would include, at a minimum, the feedstock type and feedstock production source and data on the market value of the feedstock and current uses of the feedstock, if any. The petition should also include chemical input requirements (*e.g.,* fertilizer, pesticides, etc.) and energy use in feedstock production listed by type of energy. Yield information would also be required for both the current yields of the feedstock as well as anticipated changes in feedstock yields over time.

EPA will use the data supplied in the petition and other data and information available to the Agency to technically evaluate whether the information is sufficient for EPA to make a determination of the RFS standards for which the fuel pathway may qualify. If EPA determines that the petition is insufficient for determination, the petitioner will be so notified. If EPA determines it has been provided sufficient data from the petitioner to evaluate the fuel pathway, we will then proceed with any analyses required to make a technical determination of compliance.

EPA anticipates that for some petitioned fuel pathways with unique modifications or enhancements to production technologies of pathways otherwise modeled for the regulations listed today, EPA may be able to evaluate the pathway as a reasonably straight-forward extension of our current assessments. We expect such a determination would be pathway specific, and would be based on a technical analysis that compared the applicant fuel pathway to the fuel to pathway(s) that had already been analyzed. In these cases, EPA would be able to make a determination without proceeding through a full rulemaking process. For example, petitions may submit unique biofuel production facility configurations, operations, or co-product pathways that could result in greater efficiencies than the pathways modeled for this rulemaking, but otherwise do not differ greatly from the modeled fuel pathways. In such cases, we would expect to make a decision for that specific pathway without conducting a full rulemaking process. We would expect to evaluate whether the pathway is consistent with the definitions of renewable fuel types in the regulations, generally without going through rulemaking, and issue an approval or disapproval that applies to the petitioner. We anticipate that we will subsequently propose to add the pathway to the regulations.

If EPA determines that a petitioned fuel pathway requires significant new analysis and/or modeling, EPA will need to give notice and seek public comment. For example, we anticipate that pathways with feedstocks or fuel types not yet modeled by EPA will require additional modeling and public comment before a determination of compliance can be made. In these cases, the determination would be incorporated into the annual rulemaking process established in today's regulations.

When EPA makes a technical determination is made that a petitioned fuel pathway qualifies for a RFS volume standard, a D-code will be assigned to the fuel pathway. We anticipate that renewable fuel producers and importers will be able to generate RINs for the additional pathway after the next available update of the EPA Moderated Transaction System (EMTS) that follows a determination. EPA expects to update the EMTS quarterly, as long as necessary. Renewable fuel producers will be able to register the fuel pathway through the EPA Fuels Programs Registration System two weeks after the date of determination, but as described above, will not be able to generate RINs until the quarterly EMTS update.

In the proposal, we suggested a system of temporary D-codes for biofuel pathways we had not analyzed. This was proposed as a means of assuring no undue hardship for biofuel producers using feedstock sources or processing technologies not analyzed by EPA. As proposed, these producers could market their fuel on the basis of temporarily assigned D-codes. While the objective was sound, EPA now believes it is best to properly assure compliance with thresholds on the basis of completed lifecycle GHG assessments. As noted above, the Agency commits to expedited assessment and rulemaking for those pathways most likely to generate biofuel in the immediate future, including ethanol produced from grain sorghum, ethanol, woody pulp ethanol, and palm oil biodiesel. We also plan to continue to model additional pathways we expect will be commercially available in the U.S. as soon as sufficient information is available to complete a quality lifecycle assessment. For these reasons, EPA is not finalizing a provision for assigning temporary D-codes.

D. Total GHG Reductions

Similar to the analysis done in our proposal, our analysis of the overall GHG emission impacts of increased volumes of renewable fuel was performed in parallel with the lifecycle analysis performed to develop the individual fuel thresholds described in previous sections. The same sources of emissions apply such that this analysis includes the effects of three main areas: (a) Emissions related to the production of biofuels, including the growing of feedstock (corn, soybeans, etc.) with associated domestic and international land use change impacts, transport of feedstock to fuel production plants, fuel production, and distribution of finished fuel; (b) emissions related to the extraction, production and distribution of petroleum gasoline and diesel fuel that is replaced by use of biofuels; and (c) difference in tailpipe combustion of the renewable and petroleum based fuels.

The main difference between the results of the proposal analysis and the final rule analysis are higher domestic land use change emissions in the final rule analysis. As was the case in the proposal, simply adding up the individual lifecycle results determined in Section V.C. multiplied by their respective volumes would yield a different assessment of the overall impacts. The two analyses are separate in that the overall impacts capture interactions between the different fuels that can not be broken out into per fuels impacts, while the threshold values represent impacts of specific fuels but do not account for all the interactions.

While individual fuel analysis generally had small domestic land use change emission impacts, the overall impacts had larger domestic land use change emissions. The primary reason

for the difference in domestic land use change between the individual fuel scenarios and the combined fuel scenarios is that when looking at individual fuels there is some interaction between different crops (e.g., corn replacing soybeans), but with combined volume scenario when all mandates need to be met there is less opportunity for crop replacement (*e.g.,* both corn and soybean acres needed) and therefore more land is required.

As discussed in previous sections on lifecycle GHG thresholds there is an initial one time release from land conversion and smaller ongoing releases, but there are also ongoing benefits of using renewable fuels over time replacing petroleum fuel use. Based on the volume scenario considered, the one time land use change impacts result in 313 million metric tons of CO_2-eq. emissions increase. There are, however, based on the biofuel use replacing petroleum fuels, GHG reductions in each year. Totaling the emissions impacts over 30 years but assuming a 0% discount rate over this 30 year period would result in an estimated total NPV reduction in GHG emissions of 4.15 billion tons over 30 years.

This total NPV reduction can be converted into annual average GHG reductions, which can be used for the calculations of the *monetized* GHG benefits as shown in Section VIII.C.3. This annualized value is based on converting the lump sum present values described above into their annualized equivalents. A comparable value assuming 30 years of GHG emissions changes, but not applying a discount rate to those emissions results in an estimated annualized average emission reduction of approximately 138 million metrics tons of CO_2-eq. emissions.

We also considered the uncertainty in the international land use change emission estimates for the overall impacts. Based on the range of results for the international land use change emissions the overall annualized average emission reductions of increased volumes of renewable fuel could range from −136 to −140 million metrics tons of CO_2-eq. emissions.

E. Effects of GHG Emission Reductions and Changes in Global Temperature and Sea Level

The reductions in CO_2 and other GHGs associated with increased volumes of renewable fuel will affect climate change projections. GHGs mix well in the atmosphere and have long atmospheric lifetimes, so changes in GHG emissions will affect future climate for decades to centuries. Two common indicators of climate change are global mean surface temperature and global mean sea level rise. This section estimates the response in global mean surface temperature and global mean sea level rise projections to the estimated net global GHG emissions reductions associated with increased volumes of renewable fuel.

EPA estimated changes in projected global mean surface temperatures to 2050 using the MiniCAM (Mini Climate Assessment Model) integrated assessment model [182] coupled with the MAGICC (Model for the Assessment of Greenhouse-Gas Induced Climate Change) simple climate model.[183] MiniCAM was used to create the globally and temporally consistent set of climate relevant variables required for running MAGICC. MAGICC was then used to estimate the change in the global mean surface temperature over time. Given the magnitude of the estimated emissions reductions associated with the increased volumes of renewable fuel, a simple climate model such as MAGICC is reasonable for estimating the climate response.

EPA applied the estimated annual GHG emissions changes for the final rule to a MiniCAM baseline emissions scenario.[184] Specifically, the CO_2, N_2O, and CH_4 annual emission changes from 2022–2052 from Section V.D were applied as net reductions to this baseline scenario for each GHG.

Table V.E–1 provides our estimated reductions in projected global mean surface temperatures and mean sea level rise associated with the reductions in GHG emissions due to the increase in renewable fuels in 2022. To capture some of the uncertainty in the climate system, we estimated the changes in projected temperatures and sea level across the most current Intergovernmental Panel on Climate Change (IPCC) range of climate sensitivities, 1.5 °C to 6.0 °C.[185] To illustrate the time profile of the estimated reductions in projected global mean surface temperatures and mean sea level rise, we have also provided Figures V.E–1 and V.E–2.

[182] MiniCAM is a long-term, global integrated assessment model of energy, economy, agriculture and land use, that considers the sources of emissions of a suite of greenhouse gases (GHGs), emitted in 14 globally disaggregated global regions (*i.e.,* U.S., Western Europe, China), the fate of emissions to the atmosphere, and the consequences of changing concentrations of greenhouse related gases for climate change. MiniCAM begins with a representation of demographic and economic developments in each region and combines these with assumptions about technology development to describe an internally consistent representation of energy, agriculture, land-use, and economic developments that in turn shape global emissions. Brenkert A, S. Smith, S. Kim, and H. Pitcher, 2003: Model Documentation for the MiniCAM. PNNL–14337, Pacific Northwest National Laboratory, Richland, Washington. For a recent report and detailed description and discussion of MiniCAM, see Clarke, L., J. Edmonds, H. Jacoby, H. Pitcher, J. Reilly, R. Richels, 2007. Scenarios of Greenhouse Gas Emissions and Atmospheric Concentrations. Sub-report 2.1A of Synthesis and Assessment Product 2.1 by the U.S. Climate Change Science Program and the Subcommittee on Global Change Research. Department of Energy, Office of Biological & Environmental Research, Washington, DC., USA, 154 pp.

[183] MAGICC consists of a suite of coupled gas-cycle, climate and ice-melt models integrated into a single framework. The framework allows the user to determine changes in GHG concentrations, global-mean surface air temperature and sea-level resulting from anthropogenic emissions of carbon dioxide (CO_2), methane (CH4), nitrous oxide (N2O), reactive gases (*e.g.,* CO, NO_X, VOCs), the halocarbons (*e.g.* HCFCs, HFCs, PFCs) and sulfur dioxide (SO2). MAGICC emulates the global-mean temperature responses of more sophisticated coupled Atmosphere/Ocean General Circulation Models (AOGCMs) with high accuracy. Wigley, T.M.L. and Raper, S.C.B. 1992. Implications for Climate and Sea-Level of Revised IPCC Emissions Scenarios Nature 357, 293–300. Raper, S.C.B., Wigley T.M.L. and Warrick R.A. 1996. In Sea-Level Rise and Coastal Subsidence: Causes, Consequences and Strategies J.D. Milliman, B.U. Haq, Eds., Kluwer Academic Publishers, Dordrecht, The Netherlands, pp. 11–45. Wigley, T.M.L. and Raper, S.C.B. 2002. Reasons for larger warming projections in the IPCC Third Assessment Report J. Climate 15, 2945–2952.

[184] The reference scenario is the MiniCAM reference (no climate policy) scenario used as the basis for the Representative Concentration Pathway RCP4.5 using historical emissions until 2005. This scenario is used because it contains a comprehensive suite of greenhouse and pollutant gas emissions including carbonaceous aerosols. The four RCP scenarios will be used as common inputs into a variety of Earth System Models for inter-model comparisons leading to the IPCC AR5 (Moss et al. 2008). The MiniCAM RCP4.5 is based on the scenarios presented in Clarke *et al.* (2007) with non-CO_2 and pollutant gas emissions implemented as described in Smith and Wigley (2006). Base-year information has been updated to the latest available data for the RCP process.

[185] In IPCC reports, equilibrium climate sensitivity refers to the equilibrium change in the annual mean global surface temperature following a doubling of the atmospheric equivalent carbon dioxide concentration. The IPCC states that climate sensitivity is "likely" to be in the range of 2 °C to 4.5 °C and described 3 °C as a "best estimate." The IPCC goes on to note that climate sensitivity is "very unlikely" to be less than 1.5 °C and "values substantially higher than 4.5 °C cannot be excluded." IPCC WGI, 2007, *Climate Change 2007—The Physical Science Basis,* Contribution of Working Group I to the Fourth Assessment Report of the IPCC, *http://www.ipcc.ch/.*

TABLE V.E–1—ESTIMATED REDUCTIONS IN PROJECTED GLOBAL MEAN SURFACE TEMPERATURE AND GLOBAL MEAN SEA LEVEL RISE FROM BASELINE IN 2020–2050

	Climate sensitivity					
	1.5	2	2.5	3	4.5	6
Year	Change in global mean surface temperatures (degrees Celsius)					
2020	0.000	0.000	0.000	0.000	0.000	0.000
2025	0.000	0.000	0.000	0.000	0.000	0.000
2030	0.000	0.000	0.000	0.000	0.000	0.000
2035	−0.001	−0.001	−0.001	−0.001	−0.001	−0.001
2040	−0.001	−0.001	−0.001	−0.001	−0.001	−0.001
2045	−0.001	−0.001	−0.001	−0.001	−0.002	−0.002
2050	−0.001	−0.001	−0.002	−0.002	−0.002	−0.002
Year	Change in global mean sea level rise (centimeters)					
2020	0.000	0.000	0.000	0.000	0.000	0.000
2025	0.000	0.000	0.000	0.000	0.000	0.000
2030	−0.001	−0.001	−0.001	−0.001	−0.001	−0.001
2035	−0.002	−0.002	−0.002	−0.003	−0.003	−0.003
2040	−0.003	−0.004	−0.004	−0.005	−0.005	−0.006
2045	−0.005	−0.006	−0.006	−0.007	−0.008	−0.009
2050	−0.006	−0.008	−0.009	−0.009	−0.011	−0.012

The results in Table V.E–1 and Figures V.E–1 and V.E–2 show small reductions in the global mean surface temperature and sea level rise projections across all climate sensitivities. Overall, the reductions are small relative to the IPCC's "best estimate" temperature increases by 2100 of 1.8 °C to 4.0 °C.[186] Although IPCC does not issue "best estimate" sea level rise projections, the model-based range across SRES scenarios is 18 to 59 cm by 2099.[187] While the distribution of potential temperatures in any particular year is shifting down, the shift is not uniform. The magnitude of the decrease is larger for higher climate sensitivities. The same pattern appears in the reductions in the sea level rise projections. Thus, we can conclude that the impact of increased volumes of renewable fuel is to lower the risk of climate change, as the probabilities of temperature increase and sea level rise are reduced.

VI. How Would the Proposal Impact Criteria and Toxic Pollutant Emissions and Their Associated Effects?

This section presents our assessment of the changes in emissions and air quality resulting from the increased renewable fuel volumes needed to meet the RFS2 standards. Increases in emissions of hydrocarbons, nitrogen oxides, particulate matter, and other pollutants are projected to lead to increases in population-weighted annual average ambient PM and ozone concentrations. The air quality impacts, however, are highly variable from region to region. Ambient $PM_{2.5}$ is likely to increase in areas associated with biofuel production and transport and decrease in other areas; for ozone, many areas of the country will experience increases and a few areas will see decreases. Ethanol concentrations will increase substantially; for the other modeled air toxics there are some localized impacts, but relatively little impact on national average concentrations.

A. Overview of Emissions Impacts

Today's action will affect the emissions of "criteria" pollutants (those pollutants for which EPA has established a National Ambient Air Quality Standard has been established), criteria pollutant precursors,[188] and air toxics, which may affect overall air quality and health. Emissions are affected by the processes required to produce and distribute large volumes of biofuels required by today's action and the direct effects of these fuels on vehicle and equipment emissions. As detailed in Chapter 3 of the Regulatory Impact Analysis (RIA), we have estimated emissions impacts of production and distribution-related emissions using the life cycle analysis methodology described in Section V with emission factors for criteria and toxic emissions for each stage of the life cycle, including agriculture, feedstock transportation, and the production and distribution of biofuel; included in this analysis are the impacts of reduced gasoline and diesel refining as these fuels are displaced by biofuels. Emission impacts of tailpipe and evaporative emissions for on and off road sources have been estimated by incorporating "per vehicle" fuel effects from recent research into mobile source emission inventory estimation methods.

In the proposal we analyzed a single renewable fuel volume scenario, largely dependent on ethanol, relative to three different reference cases, including the RFS1 base case. For today's rule we are presenting emission impacts for three fuel volume scenarios relative to two reference cases (RFS1 mandate and AEO) to show a range of the possible effects of biofuels depending on the relative quantities of various biofuels that may be used to meet the overall renewable fuel requirements. We have also updated our modeling for the RFS1 mandate reference case to better reflect the emissions for this case. Table VI.A–1 shows the fuel volumes for the two reference cases and all three control scenarios. Further discussion of these fuel volumes and the subcategories within each are available in Section IV.A. The emission impacts of the primary control scenario (22.2 Bgal of ethanol) are presented here relative to both reference cases. The corresponding results for all three control cases are available in Chapter 3 of the Regulatory Impact Analysis for this rule.

[186] IPCC WGI, 2007.

[187] "Because understanding of some important effects driving sea level rise is too limited, this report does not assess the likelihood, nor provide a best estimate or an upper bound for sea level rise." IPCC Synthesis Report, p. 45.

[188] NO_X and VOC are precursors to the criteria pollutant ozone; we group them with criteria pollutants in this chapter for ease of discussion.

TABLE VI.A–1—RENEWABLE FUEL VOLUMES FOR EACH REFERENCE CASE AND CONTROL SCENARIO

[Bgal/year in 2022]

Scenario	Ethanol				Biodiesel	Renewable diesel	Cellulosic diesel
	Corn	Cellulosic	Imported	Total			
RFS1 Ref	7.046	0.0	0.0	7.046	0.303	0.0	0.0
AEO Ref	12.29	0.25	0.64	13.18	0.38	0.0	0.0
Low Ethanol	15.0	0.25	2.24	17.49	1.67	0.15	9.26
Mid Ethanol (Primary)	15.0	4.92	2.24	22.16	1.67	0.15	6.52
High Ethanol	15.0	16.0	2.24	33.24	1.67	0.15	0.0

There have been a number of other enhancements and corrections to the non-GHG emission inventory estimates since the NPRM, some of which were included in the air quality modeling inventories, while others occurred later than that. The major changes are mentioned here, and all the significant changes are explained in detail in Chapter 3 of the RIA.

One significant change relates to the "downstream" vehicle and equipment emission impacts of using the increased proportions of renewable fuels. In the proposal we provided two different analyses based on two different assumptions regarding the effects of E10 and E85 versus E0 on exhaust emissions from cars and trucks. Those were referred to as "less sensitive" and "more sensitive" cases. Based on analysis of recent emissions test data conducted since publication of the NPRM, we are modeling a single case. As detailed in Section VI.C, the case modeled for the final rule is a hybrid approach, applying "more sensitive" impacts for E10 and pre-Tier 2 light duty vehicles, and applying the "less sensitive" E10 effects for Tier 2 light duty cars and trucks, which means no impact for NO_X or non-methane hydrocarbons (NMHC). We have also updated our estimates of evaporative permeation impacts of E10 based on recent studies. Finally, for the final rule inventories we are only claiming emission effects with use of E85 in flex-fueled vehicles relative to E0 for two pollutants: ethanol and acetaldehyde, for which data suggests the effects are more certain. For the "more sensitive case" presented in the NPRM, and used in the air quality modeling, we had estimated changes to additional pollutants (including significant PM reductions) based on some very limited data. Until such time as additional data is collected to enhance this analysis it is premature to use such assumptions.

For "upstream" emissions associated with fuel production and distribution, the largest change that was included in the air quality modeling was the improved estimate of VOC and ethanol vapor emissions during ethanol transport, made possible by a detailed analysis of costs and transport modes conducted by Oak Ridge National Laboratory (ORNL).[189] This change alone more than doubled the predicted overall increase in ethanol emissions from the increased use of renewable fuels, increasing the VOC enough to change the overall VOC impact from a decrease to a substantial increase.

Significant updates have also been made to emissions from cellulosic biofuel plants, in part to reflect the assumed shift in volumes from cellulosic ethanol to diesel between the proposed and final rules. For cellulosic ethanol plants, after the air quality modeling was done we discovered that the calculation of emissions from these plants had been overestimated due to failing to account for the portion of biomass that is not used for process energy. This change decreases the estimated NO_X and CO impacts, and shifts the PM impact of these plants from an increase to a small decrease. However, these changes are counterbalanced by varying degrees by shifting some of the cellulosic volume from ethanol to diesel, which requires nearly twice the biomass as needed by ethanol to produce one gallon. While the net effect of the changes in cellulosic plant emissions is a decrease in NO_X and CO emission impacts relative to the proposal, the shift to cellulosic diesel under the primary scenario results in a larger increase in "upstream" PM emissions than reported in the NPRM or used in the air quality analysis.

Updates to agricultural modeling assumptions made between proposal and final had a significant impact on ammonia (NH3) emissions. Final modeling reflects an increase in fertilizer use with the primary control case, which results in a 1.2 percent increase in NH3 emissions, a change from the 0.5 percent decrease projected for the proposal and negligible impact used in the air quality analyses.

Analysis of criteria and toxic emission impacts was performed for calendar year 2022, since this year reflects the full implementation of today's rule. Our 2022 projections account for projected growth in vehicle travel and the effects of applicable emission and fuel economy standards, including Tier 2 and Mobile Source Air Toxics (MSAT) rules for cars and light trucks and recently finalized controls on spark-ignited off-road engines.

The analysis presented here provides estimates of the change in national emission totals that would result from the increased use of renewable fuels to meet the statutory requirements of EISA. These totals may not be a good indication of local or regional air quality and health impacts. These results are aggregated across highly localized sources, such as emissions from ethanol plants and evaporative emissions from cars, and reflect offsets such as decreased emissions from gasoline refineries. The location and composition of emissions from these disparate sources may strongly influence the air quality and health impacts of the increased use of renewable fuels, so full-scale photochemical air quality modeling was also performed to accurately assess this. These localized impacts are discussed in Section VI.D.

Our projected emission impacts for the primary renewable fuel scenario relative to the two reference cases are shown in Table VI.A–2 for 2022. This shows the expected emission changes for the U.S. in that year, and the percent contribution of this impact relative to the total U.S. inventory. Overall we project that increases in the use of renewable fuels will result in significant increases in ethanol and acetaldehyde emissions—increasing the total U.S. inventories of these pollutants by 16–18 percent in 2022 relative to the RFS1 mandate case. We project more modest increases in NO_X, HC, PM, formaldehyde, 1,3-butadiene, acrolein, and ammonia (NH3) relative to the RFS1 mandate case. We project a 5 percent

[189] "Analysis of Fuel Ethanol Transportation Activity and Potential Distribution Constraints," Oak Ridge National Laboratory, U.S. Department of Energy, March 2009.

decrease in CO (due to impacts of ethanol on exhaust emissions from vehicles and nonroad equipment), and a 2.4 percent decrease in benzene (due to displacement of gasoline with ethanol in the fuel pool). Impacts on SO_2 and naphthalene are much smaller. Relative to the AEO reference case the results are similar directionally, but smaller in magnitude due to the less drastic differences in fuel volumes.

TABLE VI.A–2—TOTAL COMBINED UPSTREAM AND DOWNSTREAM EMISSION IMPACTS IN 2022 FOR PRIMARY SCENARIO RELATIVE TO EACH REFERENCE CASE

Pollutant	RFS1 Mandate		AEO	
	Annual short tons	% of total U.S. inventory	Annual short tons	% of Total U.S. inventory
NO_X	247,604	1.95	184,820	1.45
HC	100,762	0.87	24,523	0.21
PM_{10}	69,013	1.92	63,323	1.76
$PM_{2.5}$	15,549	0.46	14,393	0.42
CO	−2,869,842	−5.30	−376,419	−0.69
Benzene	−4,264	−2.41	−1,004	−0.57
Ethanol	100,123	18.20	54,137	9.84
1,3–Butadiene	224	1.70	59	0.45
Acetaldehyde	5,848	15.80	3,108	8.40
Formaldehyde	355	0.48	130	0.17
Naphthalene	−1	−0.01	−4	−0.03
Acrolein	22	0.38	21	0.35
SO_2	3,286	0.04	5,065	0.06
NH_3	48,711	1.15	48,711	1.15

The breakdown of these results by the fuel production/distribution ("well-to-pump" emissions) and vehicle and equipment ("pump-to-wheel") emissions is discussed in the following sections.

B. Fuel Production & Distribution Impacts of the Proposed Program

Fuel production and distribution emission impacts of the increased use of renewable fuels were estimated in conjunction with the development of life cycle GHG emission impacts and the GHG emission inventories discussed in Section V. These emissions are calculated according to the breakdowns of agriculture, feedstock transport, fuel production, and fuel distribution; the basic calculation is a function of fuel volumes in the analysis year and the emission factors associated with each process or subprocess. Additionally, the emission impact of displaced petroleum is estimated, using the same domestic/import shares discussed in Section V above.

In general the basis for this life cycle evaluation was the analysis conducted as part of the Renewable Fuel Standard (RFS1) rulemaking, but enhanced significantly. While our approach for the RFS1 was to rely heavily on the "Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation" (GREET) model, developed by the Department of Energy's Argonne National Laboratory (ANL), we are now able to take advantage of additional information and models to significantly strengthen and expand our analysis for this rule. In particular, the modeling of the agriculture sector was greatly expanded beyond the RFS1 analysis, employing economic and agriculture models to consider factors such as land-use impact, agricultural burning, fertilizer, pesticide use, livestock, crop allocation, and crop exports.

Other updates and enhancements to the GREET model assumptions include updated feedstock energy requirements and estimates of excess electricity available for sale from new cellulosic ethanol plants, based on modeling by the National Renewable Energy Laboratory (NREL). Per-gallon emission factors for new corn ethanol plants were updated based on EPA analysis of energy efficiency technologies currently available (such as combined heat and power) and their expected market penetrations. There are no new standards planned at this time that would offer any additional control of emissions from corn or cellulosic ethanol plants. EPA also updated the fuel and feedstock transport emission factors to account for recent EPA emission standards and modeling, such as the locomotive and commercial marine standards finalized in 2008, and revised heavy-duty truck emission rates contained in EPA's draft MOVES2009 model. EPA also modified the ethanol transport distances based on a detailed analysis of costs versus transport mode conducted by Oak Ridge National Laboratory. In addition, GREET does not include air toxics or ethanol. Thus emission factors for ethanol and the following air toxics were added: benzene, 1,3-butadiene, formaldehyde, acetaldehyde, acrolein and naphthalene.

Results of these calculations relative to each reference case in 2022 are shown in Table VI.B–1 for the criteria pollutants, ammonia, ethanol and individual air toxic pollutants. Due to the complex interactions involved in projections in the agricultural modeling, we did not attempt to adjust the agricultural inputs of the AEO reference case for the RFS1 mandate reference case. So the fertilizer and pesticide quantities, livestock counts, and total agricultural acres were the same for both reference cases. The agricultural modeling that had been done for the RFS1 rule itself was much simpler and inconsistent with the new modeling, so it would be inappropriate to use those estimates.

The fuel production and distribution impacts of the increased use of renewable fuels on VOC are mainly due to increases in emissions connected with biofuel production, countered by decreases in emissions associated with gasoline production and distribution as ethanol displaces some of the gasoline. Increases in $PM_{2.5}$, SO_X and especially NO_X are driven by stationary combustion emissions from the substantial increase in corn and cellulosic ethanol production. Biofuel plants (corn and cellulosic) tend to have greater combustion emissions relative to petroleum refineries on a per-BTU of fuel produced basis. Increases in SO_X emissions are also due to increases in agricultural chemical production and transport, while substantial PM

increases are also associated with fugitive dust from agricultural operations. Ammonia emissions are expected to increase substantially due to increased ammonia from fertilizer use.

Ethanol vapor and most air toxic emissions associated with fuel production and distribution are projected to increase. Relative to the US total reference case emissions with RFS1 mandate ethanol volumes, increases of 4–13 percent for acetaldehyde and ethanol vapor are especially significant because they are driven directly by the increased ethanol production and distribution. Formaldehyde and acrolein increases are smaller, on the order of 0.4–1 percent. There are also very small decreases in benzene, 1,3-butadiene and naphthalene relative to the US total emissions.

TABLE VI.B–1—"UPSTREAM" FUEL PRODUCTION AND DISTRIBUTION IMPACTS OF THE PRIMARY SCENARIO IN 2022 RELATIVE TO EACH REFERENCE CASE

Pollutant	RFS1 mandate		AEO	
	Annual short tons	% of Total U.S. inventory	Annual short tons	% of Total U.S. inventory
NO_X	169,665	1.34	164,170	1.29
HC	77,014	0.67	19,737	0.17
PM_{10}	69,583	1.94	63,892	1.78
$PM_{2.5}$	15,864	0.47	14,707	0.43
CO	135,658	0.25	130,172	0.24
Benzene	−231	−0.13	−236	−0.13
Ethanol	69,445	12.63	35,865	6.52
1,3–Butadiene	−1	−0.01	0	0.00
Acetaldehyde	1,617	4.37	933	2.52
Formaldehyde	293	0.39	187	0.25
Naphthalene	−8	−0.06	−6	−0.04
Acrolein	67	1.13	37	0.63
SO_2	3,266	0.04	5,044	0.06
NH_3	48,711	1.15	48,711	1.15

C. Vehicle and Equipment Emission Impacts of Fuel Program

The effects of the increased use of renewable fuels on vehicle and equipment emissions are a direct function of the effects of these fuels on exhaust and evaporative emissions from vehicles and off-road equipment, and evaporation of fuel from portable containers. To assess these impacts we conducted separate analyses to quantify the emission impacts of additional E10 due to the increased use of renewable fuels on gasoline vehicles, nonroad spark-ignited engines and portable fuel containers; E85 on cars and light trucks; biodiesel on diesel vehicles; and increased refueling events due to lower energy density of biofuels.[190]

In the proposal we provided two different analyses based on two different assumptions regarding the effects of E10 and E85 on exhaust emissions from cars and trucks. Those were referred to as "less sensitive" and "more sensitive" cases. Based on analysis of recent studies, today's analysis is based on a hybrid of these two scenarios. As detailed in the RIA, EPA and other parties have been gathering additional data on the emission impacts of ethanol fuels on later model vehicles. Data available in time for this analysis supports the hypothesis of the "less sensitive" case that newer technology Tier 2 vehicles are generally able to control for changes to emissions associated with low level ethanol blends; for this analysis we therefore are not attributing any NO_X or VOC impact to the use of E10 on these vehicles. The data does show sensitivity for older technology (pre-Tier 2) vehicles, so this analysis does attribute an increase in NO_X and decrease in NMHC to the use of E10 in these vehicles. This analysis does not include any emission impacts with use of E85 in flex-fueled vehicles, except for increases in ethanol and acetaldehyde, as the limited data currently available is insufficient to quantify the impact with any degree of certainty. Overall the sensitivity of exhaust emissions to ethanol assumed for the final rule analysis is closer to the "less sensitive" case presented in the proposal; and is generally less sensitive than the case used for the air quality modeling, as discussed in Section VI.D.

We have also updated our estimates of E10 effects on permeation emissions from light-duty vehicles based on testing recently completed by the Coordinating Research Council (CRC), showing that the relative increase in VOC emissions is higher for newer technology vehicles. Nonroad spark ignition (SI) emission impacts of E10 were based on EPA's NONROAD model and show trends similar to light duty vehicles. Biodiesel effects for this analysis were unchanged from the proposal, and are based on an analysis of recent biodiesel testing, detailed in the RIA, showing a 2 percent increase in NO_X with a 20 percent biodiesel blend, a 16 percent decrease in PM, and a 14 percent decrease in HC. These results essentially confirm the results of an earlier EPA analysis. This analysis does not attribute any downstream emission impact from the use of renewable diesel or cellulosic-based diesel relative to conventional diesel due to their chemical similarity to diesel fuel and limited test data.

Summarized vehicle and equipment emission impacts in 2022, updated as noted above, are shown in Table VI.C–1 relative to each reference case. The totals shown below reflect the net impacts from all mobile sources, including car and truck evaporative emissions, off road emissions, and portable fuel containers. Additional breakdowns by mobile source category can be found in Chapter 3 of the RIA.

Carbon monoxide, PM, benzene, and acrolein are projected to decrease in 2022 as a result of the increased use of renewable fuels, while NO_X, HC and the other air toxics, especially ethanol and acetaldehyde, are projected to increase due to the impacts of E10.

[190] The impact of renewable diesel was not estimated for this analysis; we expect little overall impact on criteria and toxic emissions due to the relatively small volume change, and because emission effects relative to conventional diesel are presumed to be negligible.

TABLE VI.C–1—"DOWNSTREAM" VEHICLE AND EQUIPMENT EMISSION IMPACTS OF THE PRIMARY SCENARIO IN 2022 RELATIVE TO EACH REFERENCE CASE

Pollutant	RFS1 Mandate		AEO	
	Annual short tons	% of Total U.S. inventory	Annual short tons	% of Total U.S. inventory
NO_X	77,939	0.61	20,650	0.16
HC	23,748	0.21	4,786	0.04
PM_{10}	−569	−0.02	−569	−0.02
$PM_{2.5}$	−315	−0.01	−315	−0.01
CO	−3,005,500	−5.55	−506,591	−0.94
Benzene	−4,033	−2.28	−768	−0.43
Ethanol	30,678	5.58	18,272	3.32
1,3–Butadiene	225	1.71	59	0.45
Acetaldehyde	4,231	11.43	2,175	5.88
Formaldehyde	62	0.08	−57	−0.08
Naphthalene	7	0.05	2	0.01
Acrolein	−44	−0.75	−16	−0.28
SO_2	21	0.00	21	0.00
NH_3	0	0.00	0	0.00

D. Air Quality Impacts

Air quality modeling was performed to assess the projected impact of the renewable fuel volumes required by RFS2 on emissions of criteria and air toxic pollutants. Our air quality modeling reflects the impact of increased renewable fuel use required by RFS2 compared with two different reference cases that include the use of renewable fuels: A 2022 reference case projection based on the RFS1-mandated volume of 7.1 billion gallons of renewable fuels, and a 2022 reference case projection based on the AEO 2007 volume of roughly 13.6 billion gallons of renewable fuels. Thus, the results represent the impact of an incremental increase in ethanol and other renewable fuels. We note that the air quality modeling results presented in this final rule do not constitute the "anti-backsliding" analysis required by Clean Air Act section 211(v). EPA will be analyzing air quality impacts of increased renewable fuel use through that study and will promulgate appropriate mitigation measures under section 211(v), separate from this final action.

It is critical to note that a key limitation of the analysis is that it employed interim emission inventories, which were somewhat enhanced compared to what was described in the proposal, but due to the timing of the analysis did not include some of the later enhancements and corrections of the final emission inventories presented in this FRM (*see* Section VI.A through VI.C of this preamble). Most significantly, our modeling of the air quality impacts of the renewable fuel volumes required by RFS2 relied upon interim inventories that assumed that ethanol will make up 34 of the 36 billion gallon renewable fuel mandate, that approximately 20 billion gallons of this ethanol will be in the form of E85, and that the use of E85 results in fewer emissions of direct $PM_{2.5}$ from vehicles. The emission impacts and air quality results would be different if, instead of E85, more non-ethanol biofuels are used or mid-level ethanol blends are approved.

In fact, as explained in Section IV, our more recent analyses indicate that ethanol and E85 volumes are likely to be significantly lower than what we assumed in the interim inventories. Furthermore, the final emission inventories do not include vehicle-related PM reductions associated with E85 use, as discussed in Section VI.A and VI.C of this preamble. There are additional, important limitations and uncertainties associated with the interim inventories that must be kept in mind when considering the results:

• *Error in $PM_{2.5}$ emissions from locomotive engines*

After the air quality modeling was completed, we discovered an error in the way that $PM_{2.5}$ emissions from locomotive engines were allocated to counties in the inventory. Although there was very little impact on national-level $PM_{2.5}$ emissions, $PM_{2.5}$ emission changes were too high in some counties and too low in others, by varying degrees. As a result, we do not present the modeling results for specific localized $PM_{2.5}$ impacts. However, we have concluded that $PM_{2.5}$ modeling results are still informative for national-level benefits assessment, as discussed at more length in Section VIII.D of this preamble and the RIA.

• *Sensitivity of light-duty vehicle exhaust emissions to ethanol blends*

As discussed above in Sections VI.A and VI.C of this preamble, the interim emission inventories used for the air quality modeling analysis are the "more sensitive" case described in the proposal. As a result, the interim inventories used for air quality modeling assume that vehicles operating on E10 have higher NO_X emissions and lower VOC, CO and PM exhaust emissions compared to the FRM inventories.

• *Cellulosic plant emissions*

The interim emission inventories used in air quality modeling generally assumed higher emissions from cellulosic plants than the FRM inventories, which used revised estimates based on updates to the fraction of biomass burned at these plants. However, as noted in Section VI.A, the shift of some cellulosic volume from ethanol to diesel results in higher PM emissions from cellulosic plants in the final rule inventories than used in the air quality modeling inventories.

• *Ethanol volume*

As mentioned above, the interim emission inventories used in our air quality modeling reflect the use of ethanol in about 34 of the mandated 36 billion gallons and do not include any cellulosic diesel. As shown in Table VI.A–1, the FRM inventories assume 22 billion gallons of ethanol in the primary case and 6.5 billion gallons of cellulosic diesel. The inventories used for air quality modeling assume ethanol volumes are more consistent with the FRM's high-ethanol case inventory, which reflects the use of 33 billion gallons of ethanol and no cellulosic diesel.

• *Renewable fuel transport emissions*

As discussed in Section 3.3, the estimates of renewable fuel transport volumes and distances differ between the air quality modeling and final rule inventories.

In this section, we present information on current modeled levels of pollution as well as projections for 2022, with respect to ambient $PM_{2.5}$, ozone, selected air toxics, and nitrogen and sulfur deposition. The air quality modeling results indicate that ambient $PM_{2.5}$ is likely to increase in areas associated with biofuel production and transport and decrease in other areas. The results of the air quality modeling also indicate that many areas of the country will experience increases in ambient ozone and a few areas will see decreases in ambient ozone as a result of the renewable fuel volumes required by RFS2. The modeling also shows that ethanol concentrations increase substantially with increases in renewable fuel volumes. For the other modeled air toxics, there are some localized impacts, but relatively little impact on national average concentrations. Our air quality modeling does not show substantial overall nationwide impacts on the annual total sulfur and nitrogen deposition occurring across the U.S. However, the air quality modeling results indicate that the entire Eastern half of the U.S. along with the Pacific Northwest would see increases in nitrogen deposition as a result of increased renewable fuel use. The results of the modeling also show that sulfur deposition will increase in the Midwest and in some rural areas of the west associated with biofuel production. The results are discussed in more detail below and in Section 3.4 of the RIA.

We used the Community Multi-scale Air Quality (CMAQ) photochemical model, version 4.7, for our analysis. This version of CMAQ includes a number of improvements to previous versions of the model that are important in assessing impacts of the increased use of renewable fuels, including additional pathways for formation of soluble organic aerosols (SOA). These improvements are discussed in Section 3.4 of the RIA.

In addition to the limitations of the analysis that result from the use of interim emission inventories rather than the FRM inventories, there are uncertainties in the air quality analysis that should be noted. First, there are uncertainties inherent in the modeling process. Pollutants such as ozone, PM, acetaldehyde, formaldehyde, acrolein, and 1,3-butadiene can be formed secondarily through atmospheric chemical processes. These processes can be very complex, and there are uncertainties in emissions of precursor compounds and reaction pathways. In addition, simplifications of chemistry must be made in order to handle reactions of thousands of chemicals in the atmosphere. Another source of uncertainty involves the hydrocarbon speciation profiles, which are applied to the VOC inventories to break VOC down into individual constituent compounds which react in the atmosphere. Given the complexity of the atmospheric chemistry, the hydrocarbon speciation has an important influence on the air quality modeling results. Speciation profiles for a number of key sources are based on data with significant limitations. Finally, there are uncertainties in the surrogates used to allocate emissions spatially and temporally; this is particularly significant in projecting the location of new ethanol plants, especially future cellulosic biofuel plants. These plants can have large impacts on local emissions. A more detailed discussion of these and additional uncertainties and limitations associated with our air quality modeling is presented in Section 3.4 of the RIA.

1. Particulate Matter

a. Current Levels

$PM_{2.5}$ concentrations exceeding the level of the $PM_{2.5}$ NAAQS occur in many parts of the country. In 2005, EPA designated 39 nonattainment areas for the 1997 $PM_{2.5}$ NAAQS (70 FR 943, January 5, 2005). These areas are composed 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 24-hour $PM_{2.5}$ NAAQS became effective on December 18, 2006. On October 8, 2009, the EPA issued final nonattainment area designations for the 2006 24-hour $PM_{2.5}$ NAAQS (74 FR 58688, November 13, 2009). These designations include 31 areas composed of 120 full or partial counties with a population of over 70 million. In total, there are 54 $PM_{2.5}$ nonattainment areas composed of 245 counties with a population of 101 million people.

b. Projected Levels Without RFS2 Volumes

States with $PM_{2.5}$ nonattainment areas are required to take action to bring those areas into compliance in the future. 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 2006 24-hour $PM_{2.5}$ nonattainment areas will be required to attain the 2006 24-hour $PM_{2.5}$ NAAQS in the 2014 to 2019 time frame and then be required to maintain the 2006 24-hour $PM_{2.5}$ NAAQS thereafter.

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, recent air quality modeling for the "Control of Emissions from New Marine Compression-Ignition Engines at or Above 30 Liters per Cylinder" rule projects that in 2020, at least 10 counties with a population of almost 25 million may not attain the 1997 annual $PM_{2.5}$ standard of 15 $\mu g/m^3$ and 47 counties with a population of over 53 million may not attain the 2006 24-hour $PM_{2.5}$ standard of 35 $\mu g/m^3$.[191] These numbers do not account for those areas that are close to (e.g., within 10 percent of) the $PM_{2.5}$ standards. These areas, although not violating the standards, will also benefit from any reductions in $PM_{2.5}$ ensuring long-term maintenance of the $PM_{2.5}$ NAAQS.

c. Projected Levels With RFS2 Volumes

We are not able to present air quality modeling results which detail changes in $PM_{2.5}$ design values for specific local areas due to the error in the locomotive inventory mentioned in the introduction to this section. However, we do know that ambient $PM_{2.5}$ increases in some areas of the country and decreases in other areas of the country. Ambient $PM_{2.5}$ is likely to increase as a result of emissions at biofuel production plants and from biofuel transport, both of which are more prevalent in the Midwest. PM concentrations are likely to decrease in some areas due to reductions in SOA formation and reduced emissions from gasoline refineries. In addition, decreases in ambient PM are predicted because our modeling inventory assumed that E85 usage reduces PM tailpipe emissions. The decreases in ambient PM from reductions in SOA and tailpipe emissions are likely to occur where there is a higher density of vehicles, such as the Northeast. *See* Section VIII.D for a discussion of the changes in national average population-weighted $PM_{2.5}$ concentrations.

[191] US EPA (2009). Final Rule "Control of Emissions from New Marine Compression-Ignition Engines at or Above 30 Liters per Cylinder". (This rule was signed on December 18, 2009 but has not yet been published in the **Federal Register**. The signed version of the rule is available at *http://epa.gov/otaq/oceanvessels.htm*).

2. Ozone

a. Current Levels

8-hour ozone concentrations exceeding the level of the ozone NAAQS occur in many parts of the country. In 2008, the U.S. EPA amended the ozone NAAQS (73 FR 16436, March 27, 2008). The final 2008 ozone NAAQS rule set forth revisions to the previous 1997 NAAQS for ozone to provide increased protection of public health and welfare. As of January 6, 2010 there are 51 areas designated as nonattainment for the 1997 8-hour ozone NAAQS, comprising 266 full or partial counties with a total population of over 122 million people. These numbers do not include the people living in areas where there is a future risk of failing to maintain or attain the 1997 8-hour ozone NAAQS. The numbers above likely underestimate the number of counties that are not meeting the ozone NAAQS because the nonattainment areas associated with the more stringent 2008 8-hour ozone NAAQS have not yet been designated.[192] Table VI.D–1 provides an estimate, based on 2005–07 air quality data, of the counties with design values greater than the 2008 8-hour ozone NAAQS of 0.075 ppm.

TABLE VI.D–1—COUNTIES WITH DESIGN VALUES GREATER THAN THE 2008 OZONE NAAQS BASED ON 2005–2007 AIR QUALITY DATA

	Number of counties	Population [a]
1997 Ozone Standard: Counties within the 51 areas currently designated as nonattainment (as of 1/6/10)	266	122,343, 799
2008 Ozone Standard: Additional counties that would not meet the 2008 NAAQS [b]	227	41,285,262
Total	493	163,629,061

Notes:
[a] Population numbers are from 2000 census data.
[b] Area designations for the 2008 ozone NAAQS have not yet been made. Nonattainment for the 2008 Ozone NAAQS would be based on three years of air quality data from later years. Also, the county numbers in this row include only the counties with monitors violating the 2008 Ozone NAAQS. The numbers in this table may be an underestimate of the number of counties and populations that will eventually be included in areas with multiple counties designated nonattainment.

b. Projected Levels Without RFS2 Volumes

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 for the 1997 standard (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. EPA has recently proposed to reconsider the 2008 ozone NAAQS. If EPA promulgates different ozone NAAQS in 2010 as a result of the reconsideration, they would fully replace the 2008 ozone NAAQS and there would no longer be a requirement to designate areas for the 2008 NAAQS. EPA would designate nonattainment areas for a potential new 2010 primary ozone NAAQS based on the reconsideration of the 2008 ozone NAAQS in 2011. The attainment dates for areas designated nonattainment for a potential new 2010 primary ozone NAAQS are likely to be in the 2014 to 2031 timeframe, depending on the severity of the problem.

EPA has already adopted many emission control programs that are expected to reduce ambient ozone levels and assist in reducing the number of areas that fail to achieve the ozone NAAQS. Even so, our air quality modeling projects that in 2022, with all current controls but excluding the impacts of the renewable fuel volumes required by RFS2, up to 7 counties with a population of over 22 million may not attain the 2008 ozone standard of 0.075 ppm (75 ppb). These numbers do not account for those areas that are close to (*e.g.,* within 10 percent of) the 2008 ozone standard. These areas, although not violating the standards, will also benefit from any reductions in ozone ensuring long-term maintenance of the ozone NAAQS.

c. Projected Levels With RFS2 Volumes

Our modeling indicates that the required renewable fuel volumes will cause increases in ozone design value concentrations in many areas of the country and decreases in ozone design value concentrations in a few areas. Air quality modeling of the expected impacts of the renewable fuel volumes required by RFS2 shows that in 2022, most counties with modeled data, especially those in the southeast U.S., will see increases in their ozone design values. These adverse impacts are likely due to increased upstream emissions of NO_X in many areas that are NO_X-limited (acting as a precursor to ozone formation). The majority of these design value increases are less than 0.5 ppb. The maximum projected increase in an 8-hour ozone design value is in Morgan County, Alabama, 1.56 ppb and 1.27 ppb when compared with the RFS1 mandate and AEO 2007 reference cases respectively. As mentioned above there are some areas which see decreases in their ozone design values. This is likely due to VOC emission reductions at the tailpipe in urban areas that are VOC-limited (reducing VOC's role as a precursor to ozone formation). The maximum decrease projected in an 8-hour ozone design value is in Riverside, CA, 0.66 ppb and 0.6 ppb when compared with the RFS1 mandate and AEO 2007 reference cases respectively. On a population-weighted basis, the average modeled future-year 8-hour ozone design values are projected to increase by 0.28 ppb in 2022 when compared with the RFS1 mandate reference case and increase by 0.16 ppb when compared with the AEO 2007 reference case. On a population-weighted basis the design values for those counties that are projected to be above the 2008 ozone standard in 2022 will see decreases of 0.14 ppb when compared with the RFS1 mandate reference case and 0.15 ppb when compared with the AEO 2007 reference case.

[192] EPA recently proposed to reconsider the 2008 NAAQS. Because of the uncertainty the reconsideration proposal creates regarding the continued applicability of the 2008 ozone NAAQS, EPA has used its authority to extend by 1 year the deadline for promulgating designations for those NAAQS. The new deadline is March 2011. EPA intends to complete the reconsideration by August 31, 2010.

3. Air Toxics

a. Current Levels

The majority of Americans continue to be exposed to ambient concentrations of air toxics at levels which have the potential to cause adverse health effects.[193] The levels of air toxics to which people are exposed vary depending on where people live and work and the kinds of activities in which they engage, as discussed in detail in U.S. EPA's recent Mobile Source Air Toxics Rule.[194] According to the National Air Toxic Assessment (NATA) for 2002,[195] mobile sources were responsible for 47 percent of outdoor toxic emissions, over 50 percent of the cancer risk, and over 80 percent of the noncancer hazard. Benzene is the largest contributor to cancer risk of all 124 pollutants quantitatively assessed in the 2002 NATA and mobile sources were responsible for 59 percent of benzene emissions in 2002. Over the years, EPA has implemented a number of mobile source and fuel controls resulting in VOC reductions, which also reduce benzene and other air toxic emissions.

b. Projected Levels

Our modeling indicates that, while there are some localized impacts, the renewable fuel volumes required by RFS2 have relatively little impact on national average ambient concentrations of the modeled air toxics. An exception is increased ambient concentrations of ethanol. For more information on the air toxics modeling results, *see* Section 3.4 of the RIA for annual average results and Appendix 3A of the RIA for seasonal average results. Our discussion of the air quality modeling results focuses primarily on impacts of the renewable fuel volumes required by RFS2 in reference to the RFS1 mandate for 2022. Except where specifically discussed below, air quality modeling results of increased renewable fuel use with RFS2 as compared to the AEO 2007 reference case are presented in Appendix 3A of this RIA.

i. Acetaldehyde

Our air quality modeling does not show substantial overall nationwide impacts on ambient concentrations of acetaldehyde as a result of the renewable fuel volumes required by this rule, although there is considerable uncertainty associated with the results. Annual percent changes in ambient concentrations of acetaldehyde are less than 1% for most of the country, and annual absolute changes in ambient concentrations of acetaldehyde are generally less than 0.1 μg/m^3. Some urban areas show decreases in ambient acetaldehyde concentrations ranging from 1 to 10%, and some rural areas associated with new ethanol plants show increases in ambient acetaldehyde concentrations ranging from 1 to 10% with RFS2 volumes. This increase is due to an increase in emissions of primary acetaldehyde and precursor emissions from ethanol plants. A key reason for the decrease in urban areas is reductions in certain acetaldehyde precursors, primarily alkenes (olefins). Most ambient acetaldehyde is formed from secondary photochemical reactions of numerous precursor compounds, and many photochemical mechanisms are responsible for this process.

The uncertainty associated with these results is described in more detail in Section 3.4 of the RIA. For example, some of the modeled decreases would likely become increases using data recently collected by EPA's Office of Research and Development on the composition of hydrocarbon emissions from gasoline storage, gasoline distribution, and gas cans. Furthermore, as noted in the introduction to Section VI.D, the inventories used for air quality modeling may overestimate NO_X, because they assumed that use of E10 would lead to increases in NO_X emissions for later model year vehicles. The emission inventories for the final rule no longer make this assumption, based on recent EPA testing results.[196] Because increases in NO_X may result in more acetyl peroxy radical forming PAN rather than acetaldehyde, our air quality modeling results may underestimate the ambient concentrations of acetaldehyde.

Some previous U.S. monitoring studies have suggested an insignificant or small impact of increased use of ethanol in fuel on ambient acetaldehyde, as discussed in more detail in Section 3.4 of the RIA. These studies suggest that increases in direct emissions of acetaldehyde are offset by decreases in the secondary formation of acetaldehyde. Other past studies have shown increases in ambient acetaldehyde with increased use of ethanol in fuel, although factors such as differences in vehicle fleet, lack of RVP control, and exclusion of upstream impacts may limit the ability of these studies to inform expected impacts on ambient air quality Given the conflicting results among past studies and the limitations of our analysis, considerable additional work is needed to address the impacts of the renewable fuel volumes required by this rule on ambient concentrations of acetaldehyde.

ii. Formaldehyde

Our air quality modeling results do not show substantial impacts on ambient concentrations of formaldehyde from the renewable fuel volumes required by this rule. Most of the U.S. experiences a 1% or less change in ambient formaldehyde concentrations. Decreases in ambient formaldehyde concentrations range between 1 and 5% in a few urban areas. Increases range between 1 and 2.5% in some rural areas associated with new ethanol plants; this result is due to increases in emissions of primary formaldehyde and formaldehyde precursors from the new ethanol plants. Absolute changes in ambient concentrations of formaldehyde are generally less than 0.1 μg/m^3.

iii. Ethanol

Our modeling projects that the renewable fuel volumes required by this rule will lead to significant nationwide increases in ambient ethanol concentrations. Increases ranging between 10 to 50% are seen across most of the country. The largest increases (more than 100%) occur in urban areas with high amounts of on-road emissions and in rural areas associated with new ethanol plants. Absolute increases in ambient ethanol concentrations are above 1.0 ppb in some urban areas. Analysis of a modeling error that impacted ethanol emissions suggests that this error resulted in overestimates of ethanol impacts by more than 10% across much of the country. For a detailed discussion of this error, please refer to the emissions modeling TSD, found in the docket for this rule (EPA–HQ–OAR–2005–0161).

iv. Benzene

Our modeling projects that the renewable fuel volumes required by this rule will lead to small nationwide decreases in ambient benzene concentrations. Decreases in ambient benzene concentrations range between 1 and 10% across most of the country and can be higher in a few urban areas. Absolute changes in ambient concentrations of benzene show reductions up to 0.2 μg/m^3.

[193] U. S. EPA. (2009) 2002 National-Scale Air Toxics Assessment. *http://www.epa.gov/ttn/atw/nata2002/*.

[194] U.S. Environmental Protection Agency (2007). Control of Hazardous Air Pollutants from Mobile Sources; Final Rule. 72 FR 8434, February 26, 2007.

[195] U.S. EPA. (2009) 2002 National-Scale Air Toxics Assessment. *http://www.epa.gov/ttn/atw/nata2002/*.

[196] "Summary of recent findings for fuel effects of a 10% ethanol blend on light duty exhaust emissions", Memo from Aron Butler to Docket EPA–HQ–OAR–2005–0161.

v. 1,3-Butadiene

The results of our air quality modeling show small increases and decreases in ambient concentrations of 1,3-butadiene in parts of the U.S. as a result of increases in renewable fuel volumes required by RFS2. Generally, decreases occur in some southern areas of the country and increases occur in some northern areas and areas with high altitudes. Percent changes in 1,3-butadiene concentrations are over 50% in several areas; but the changes in absolute concentrations of ambient 1,3-butadiene are generally less than 0.005 μg/m^3. Annual increases in ambient concentrations of 1,3-butadiene are driven by wintertime changes. These increases appear in rural areas with cold winters and low ambient levels but high contributions of emissions from snowmobiles, and a major reason for this modeled increase may be deficiencies in available emissions test data used to estimate snowmobile 1,3-butadiene emission inventories.

vi. Acrolein

Our air quality modeling shows small regional increases and decreases in ambient concentrations of acrolein as a result of increases in renewable fuel volumes required by this rule. Decreases in acrolein concentrations occur in some eastern and southern parts of the U.S. and increases occur in some northern areas and areas associated with new ethanol plants. Changes in absolute ambient concentrations of acrolein are between ± 0.001 μg/m^3 with the exception of the increases associated with new ethanol plants. These increases can be up to and above 0.005 μg/m^3 with percent changes above 50% and are due to increases in emissions of acrolein from the new plants. Ambient acrolein increases in northern regions are driven by wintertime changes, and occur in the same areas of the country that have wintertime increases in ambient 1,3-butadiene. 1,3-butadiene is a precursor to acrolein, and these increases are likely associated with the same emission inventory issues in areas of high snowmobile usage seen for 1,3-butadiene, as described above.

vii. Population Metrics

To assess the impact of projected changes in ambient air toxics as a result of increases in renewable fuel volumes required by this rule, we developed population metrics that show the population experiencing increases and decreases in annual ambient concentrations of the modeled air toxics. Table VI.D–2 below illustrates the percentage of the population impacted by changes of various magnitudes in annual ambient concentrations with the renewable fuel volumes required by RFS2, as compared to the RFS1 mandate reference case.

TABLE VI.D–2—PERCENT OF TOTAL POPULATION IMPACTED BY CHANGES IN ANNUAL AMBIENT CONCENTRATIONS OF TOXIC POLLUTANTS: RFS2 COMPARE TO RFS1 MANDATE

Percent change in annual ambient concentration	Acetaldehyde (percent)	Acrolein (percent)	Benzene (percent)	1,3–Butadiene (percent)	Ethanol (percent)	Formaldehyde (percent)
≤ −100						
> −100 to ≤ −50						
> −50 to ≤ −10	0.76		1.18	1.38		
> −10 to ≤ −5	8.17	0.18	12.92	28.11		
> −5 to ≤ −2.5	13.29	13.66	48.76	31.98		4.11
> −2.5 to ≤ −1	25.26	40.13	23.60	12.87		19.30
> −1 to <1	52.24	36.03	13.55	19.37		76.08
≥1 to <2.5	0.24	3.44		1.53		0.48
≥2.5 to <5	0.04	2.93		1.13	0.22	0.01
≥5 to <10	0.02	2.00		1.13	1.23	
≥10 to <50		1.51		2.15	63.29	
≥50 to <100		0.08		0.28	34.49	
≥100		0.05		0.06	0.77	

Table VI.D–3 shows changes in the population-weighted average ambient concentrations of air toxics that are projected to occur in 2022 with increased renewable fuel use as required by this rule.

TABLE VI.D–3—POPULATION-WEIGHTED AVERAGE AMBIENT CONCENTRATIONS OF AIR TOXICS IN 2022 WITH RFS2 RENEWABLE FUEL REQUIREMENTS

	Population-weighted concentration (Annual average in μg/m^3)			Population-weighted concentration (Annual average in μg/m^3)		
	RFS2 v. RFS1 mandate reference case			RFS2 v. AEO 2007 reference case		
	RFS2	RFS1 mandate	Diff. RFS2–RFS1	RFS2	AEO 2007	Diff. RFS2–AEO
Acetaldehyde	1.590	1.618	−0.028	1.590	1.613	−0.023
Acrolein	0.017	0.018	−0.001	0.017	0.017	−0.0001
Benzene	0.520	0.535	−0.015	0.520	0.527	−0.007
1,3-Butadiene	0.022	0.023	−0.001	0.022	0.230	−0.208
Ethanol	1.521	1.039	0.482	1.521	1.112	0.409
Formaldehyde	1.549	1.558	−0.009	1.549	0.004	−0.006

4. Nitrogen and Sulfur Deposition

a. Current Levels

Over the past two decades, the EPA has undertaken numerous efforts to reduce nitrogen and sulfur deposition across the U.S. Analyses of long-term monitoring data for the U.S. show that deposition of both nitrogen and sulfur compounds has decreased over the last 17 years although many areas continue to be negatively impacted by deposition. Deposition of inorganic nitrogen and sulfur species routinely measured in the U.S. between 2004 and 2006 were as high as 9.6 kilograms of nitrogen per hectare per year (kg N/ha/yr) and 21.3 kilograms of sulfur per hectare per year (kg S/ha/yr). The data show that reductions were more substantial for sulfur compounds than for nitrogen compounds. These numbers are generated by the U.S. national monitoring network and they likely underestimate nitrogen deposition because neither ammonia nor organic nitrogen is measured. In the eastern U.S., where data are most abundant, total sulfur deposition decreased by about 36% between 1990 and 2005, while total nitrogen deposition decreased by 19% over the same time frame.[197]

b. Projected Levels

Our air quality modeling does not show substantial overall nationwide impacts on the annual total sulfur and nitrogen deposition occurring across the U.S. as a result of increased renewable fuel volumes required by this rule. For sulfur deposition, when compared to the RFS1 mandate reference case, the RFS2 renewable fuel volumes will result in annual percent increases in the Midwest ranging from 1% to more than 4%. Some rural areas in the west, likely associated with new ethanol plants, will also have increases in sulfur deposition ranging from 1% to more than 4% as a result of the RFS2 renewable fuel volumes. When compared to the AEO 2007 reference case, the changes are more limited. The Midwest will still have sulfur deposition increases ranging from 1% to more than 4%, but the size of the area with these changes will be smaller. The Pacific Northwest has minimal areas with increases in sulfur deposition when compared to the AEO 2007 reference case. When compared to both the RFS1 mandate and AEO 2007 reference cases, areas along the Gulf Coast in Louisiana and Texas will experience decreases in sulfur deposition of 2% to more than 4%. The remainder of the country will see only minimal changes in sulfur deposition, ranging from decreases of less than 1% to increases of less than 1%. For a map of 2022 sulfur deposition impacts and additional information on these impacts, *see* Section 3.4.2.2 of the RIA.

Overall, nitrogen deposition impacts in 2022 resulting from the renewable fuel volumes required by RFS2 are more widespread than the sulfur deposition impacts. When compared to the RFS1 mandate 2007 reference case, nearly the entire eastern half of the United States will see nitrogen deposition increases ranging from 0.5% to more than 2%. The largest increases will occur in the states of Illinois, Michigan, Indiana, Wisconsin, and Missouri, with large portions of each of these states seeing nitrogen deposition increases of more than 2%. The Pacific Northwest will also experience increases in nitrogen of 0.5% to more than 2%. When compared to the AEO 2007 reference case, the changes in nitrogen deposition are more limited. The eastern half of the United States will still see nitrogen deposition increases ranging from 0.5% to more than 2%; however, the size of the area with these changes will be smaller. Increases of more than 2% will primarily occur only in Illinois, Indiana, Michigan, and Missouri. Fewer areas in the Pacific Northwest will have increases in nitrogen deposition when compared to the AEO 2007 reference case. In both the RFS1 mandate and AEO 2007 reference cases, the Mountain West and Southwest will see only minimal changes in nitrogen deposition, ranging from decreases of less than 0.5% to increases of less than 0.5%. A few areas in Minnesota and western Kansas would experience reductions of nitrogen up to 2%. *See* Section 3.4.2.2 of the RIA for a map and additional information on nitrogen deposition impacts.

E. Health Effects of Criteria and Air Toxics Pollutants

1. Particulate Matter

a. Background

Particulate matter is a generic term for 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. Since 1987, EPA has delineated that subset of inhalable particles small enough to penetrate to the thoracic region (including the tracheobronchial and alveolar regions) of the respiratory tract (referred to as thoracic particles). Current NAAQS use $PM_{2.5}$ as the indicator for fine particles (with $PM_{2.5}$ referring to particles with a nominal mean aerodynamic diameter less than or equal to 2.5 μm), and use PM_{10} as the indicator for purposes of regulating the coarse fraction of PM_{10} (referred to as thoracic coarse particles or coarse-fraction particles; generally including particles with a nominal mean aerodynamic diameter greater than 2.5 μm and less than or equal to 10 μm, or $PM_{10-2.5}$). Ultrafine particles are a subset of fine particles, generally less than 100 nanometers (0.1 μm) in aerodynamic diameter.

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.

b. Health Effects of PM

Scientific studies show ambient PM is associated with a series of adverse health effects. These health effects are discussed in detail in EPA's 2004 Particulate Matter Air Quality Criteria Document (PM AQCD) and the 2005 PM Staff Paper.[198] [199] [200] 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, aggravation of cardiovascular and lung disease (as indicated by

[197] U.S. EPA. U.S. EPA's 2008 Report on the Environment (Final Report). U.S. Environmental Protection Agency, Washington, DC, EPA/600/R–07/045F (NTIS PB2008–112484).

[198] U.S. EPA (2004). *Air Quality Criteria for Particulate Matter.* Volume I EPA600/P–99/002aF and Volume II EPA600/P–99/002bF. Retrieved on March 19, 2009 from Docket EPA–HQ–OAR–2003–0190 at *http://www.regulations.gov/.*

[199] 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–05–005a. Retrieved March 19, 2009 from *http://www.epa.gov/ttn/naaqs/standards/pm/data/pmstaffpaper_20051221.pdf.*

[200] The PM NAAQS is currently under review and the EPA is considering all available science on PM health effects, including information which has been published since 2004, in the development of the upcoming PM Integrated Science Assessment Document (ISA). A second draft of the PM ISA was completed in July 2009 and was submitted for review by the Clean Air Scientific Advisory Committee (CASAC) of EPA's Science Advisory Board. Comments from the general public have also been requested. For more information, *see http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=210586.*

increased hospital admissions and emergency department visits), increased respiratory symptoms including cough and difficulty breathing, decrements in lung function, altered heart rate rhythm, and other more subtle changes in blood markers related to cardiovascular health.[201] Long-term exposure to $PM_{2.5}$ and sulfates has also been associated with mortality from cardiopulmonary disease and lung cancer, and effects on the respiratory system such as reduced lung function growth or development of respiratory disease. A new analysis shows an association between long-term $PM_{2.5}$ exposure and a subclinical measure of atherosclerosis.[202] [203]

Studies examining populations exposed over the long term (one or more years) to different levels of air pollution, 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 all cause and cardiopulmonary premature mortality.[204] [205] [206] In addition, an extension of the American Cancer Society Study shows an association between $PM_{2.5}$ and sulfate concentrations and lung cancer mortality.[207]

2. Ozone

a. Background

Ground-level ozone pollution is typically formed by the reaction of VOC and 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.[208] 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 be transported hundreds of miles downwind from precursor emissions, resulting in elevated ozone levels even in areas with low local VOC or NO_X emissions.

b. Health Effects of Ozone

The health and welfare effects of ozone are well documented and are assessed in EPA's 2006 Air Quality Criteria Document (ozone AQCD) and 2007 Staff Paper.[209] [210] 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. In addition, there is suggestive evidence of a contribution of ozone to cardiovascular-related morbidity and highly suggestive evidence that short-term ozone exposure directly or indirectly contributes to non-accidental and cardiopulmonary-related mortality, but additional research is needed to clarify the underlying mechanisms causing these effects. In a recent report on the estimation of ozone-related premature mortality published by the National Research Council (NRC), a panel of experts and reviewers concluded that short-term exposure to ambient ozone is likely to contribute to premature deaths and that ozone-related mortality should be included in estimates of the health benefits of reducing ozone exposure.[211] 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 of particular concern.

The 2006 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

[201] U.S. EPA. (2006). *National Ambient Air Quality Standards for Particulate Matte.* 71 FR 61144, October 17, 2006.

[202] Künzli, N., Jerrett, M., Mack, W.J., *et al.* (2004). Ambient air pollution and atherosclerosis in Los Angeles. *Environ Health Perspect.,113,* 201–206.

[203] This study is included in the 2006 Provisional Assessment of Recent Studies on Health Effects of Particulate Matter Exposure. The provisional assessment did not and could not (given a very short timeframe) undergo the extensive critical review by CASAC and the public, as did the PM AQCD. The provisional assessment found that the "new" studies expand the scientific information and provide important insights on the relationship between PM exposure and health effects of PM. The provisional assessment also found that "new" studies generally strengthen the evidence that acute and chronic exposure to fine particles and acute exposure to thoracic coarse particles are associated with health effects. Further, the provisional science assessment found that the results reported in the studies did not dramatically diverge from previous findings, and taken in context with the findings of the AQCD, the new information and findings did not materially change any of the broad scientific conclusions regarding the health effects of PM exposure made in the AQCD. However, it is important to note that this assessment was limited to screening, surveying, and preparing a provisional assessment of these studies. For reasons outlined in Section I.C of the preamble for the final PM NAAQS rulemaking in 2006 (*see* 71 FR 61148–49, October 17, 2006), EPA based its NAAQS decision on the science presented in the 2004 AQCD.

[204] Dockery, D.W., Pope, C.A. 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. Retrieved on March 19, 2009 from *http://content.nejm.org/cgi/content/full/329/24/1753.*

[205] Pope, C.A., III, Thun, M.J., Namboodiri, M.M., Dockery, D.W., Evans, J.S., Speizer, F.E., and Heath, C.W., Jr. (1995). Particulate air pollution as a predictor of mortality in a prospective study of U.S. adults. *Am. J. Respir. Crit. Care Med, 151,* 669–674.

[206] Krewski, D., Burnett, R.T., Goldberg, M.S., et al. (2000). *Reanalysis of the Harvard Six Cities study and the American Cancer Society study of particulate air pollution and mortality.* A special report of the Institute's Particle Epidemiology Reanalysis Project. Cambridge, MA: Health Effects Institute. Retrieved on March 19, 2009 from *http://es.epa.gov/ncer/science/pm/hei/Rean-ExecSumm.pdf.*

[207] 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.

[208] U.S. EPA. (2006). Air Quality Criteria for Ozone and Related Photochemical Oxidants (Final). EPA/600/R–05/004aF–cF. Washington, DC: U.S. EPA. Retrieved on March 19, 2009 from Docket EPA–HQ–OAR–2003–0190 at *http://www.regulations.gov/.*

[209] U.S. EPA. (2006). Air Quality Criteria for Ozone and Related Photochemical Oxidants (Final). EPA/600/R–05/004aF–cF. Washington, DC: U.S. EPA. Retrieved on March 19, 2009 from Docket EPA–HQ–OAR–2003–0190 at *http://www.regulations.gov/.*

[210] 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. Washington, DC, U.S. EPA. Retrieved on March 19, 2009 from Docket EPA–HQ–OAR–2003–0190 at *http://www.regulations.gov/.*

[211] National Research Council (NRC), 2008. *Estimating Mortality Risk Reduction and Economic Benefits from Controlling Ozone Air Pollution.* The National Academies Press: Washington, DC.

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.

3. NO_X and SO_X

a. Background

Nitrogen dioxide (NO_2) is a member of the NO_X family of gases. Most NO_2 is formed in the air through the oxidation of nitric oxide (NO) emitted when fuel is burned at a high temperature. SO_2, a member of the sulfur oxide (SO_X) family of gases, is formed from burning fuels containing sulfur (*e.g.,* coal or oil derived), extracting gasoline from oil, or extracting metals from ore.

SO_2 and NO_2 can dissolve in water vapor and further oxidize to form sulfuric and nitric acid which react with ammonia to form sulfates and nitrates, both of which are important components of ambient PM. The health effects of ambient PM are discussed in Section VI.D.1 of this preamble. NO_X along with non-methane hydrocarbon (NMHC) are the two major precursors of ozone. The health effects of ozone are covered in Section VI.D.2.

b. Health Effects of NO_X

Information on the health effects of NO_2 can be found in the U.S. Environmental Protection Agency Integrated Science Assessment (ISA) for Nitrogen Oxides.[212] The U.S. EPA has concluded that the findings of epidemiologic, controlled human exposure, and animal toxicological studies provide evidence that is sufficient to infer a likely causal relationship between respiratory effects and short-term NO_2 exposure. The ISA concludes that the strongest evidence for such a relationship comes from epidemiologic studies of respiratory effects including symptoms, emergency department visits, and hospital admissions. The ISA also draws two broad conclusions regarding airway responsiveness following NO_2 exposure. First, the ISA concludes that NO_2 exposure may enhance the sensitivity to allergen-induced decrements in lung function and increase the allergen-induced airway inflammatory response following 30-minute exposures of asthmatics to NO_2 concentrations as low as 0.26 ppm. In addition, small but significant increases in non-specific airway hyperresponsiveness were reported following 1-hour exposures of asthmatics to 0.1 ppm NO_2. Second, exposure to NO_2 has been found to enhance the inherent responsiveness of the airway to subsequent nonspecific challenges in controlled human exposure studies of asthmatic subjects. Enhanced airway responsiveness could have important clinical implications for asthmatics since transient increases in airway responsiveness following NO_2 exposure have the potential to increase symptoms and worsen asthma control. Together, the epidemiologic and experimental data sets form a plausible, consistent, and coherent description of a relationship between NO_2 exposures and an array of adverse health effects that range from the onset of respiratory symptoms to hospital admission.

Although the weight of evidence supporting a causal relationship is somewhat less certain than that associated with respiratory morbidity, NO_2 has also been linked to other health endpoints. These include all-cause (nonaccidental) mortality, hospital admissions or emergency department visits for cardiovascular disease, and decrements in lung function growth associated with chronic exposure.

c. Health Effects of SO_X

Information on the health effects of SO_2 can be found in the U.S. Environmental Protection Agency Integrated Science Assessment for Sulfur Oxides.[213] SO_2 has long been known to cause adverse respiratory health effects, particularly among individuals with asthma. Other potentially sensitive groups include children and the elderly. During periods of elevated ventilation, asthmatics may experience symptomatic bronchoconstriction within minutes of exposure. Following an extensive evaluation of health evidence from epidemiologic and laboratory studies, the EPA has concluded that there is a causal relationship between respiratory health effects and short-term exposure to SO_2. Separately, based on an evaluation of the epidemiologic evidence of associations between short-term exposure to SO_2 and mortality, the EPA has concluded that the overall evidence is suggestive of a causal relationship between short-term exposure to SO_2 and mortality.

4. Carbon Monoxide

Carbon monoxide (CO) forms as a result of incomplete fuel combustion. CO 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 exposures to lower levels of CO is most serious for those who suffer from cardiovascular disease, particularly those with angina or peripheral vascular disease. Epidemiological studies have suggested that exposure to ambient levels of CO is associated with increased risk of hospital admissions for cardiovascular causes, fetal effects, and possibly premature cardiovascular mortality. Healthy individuals also are affected, but only when they are exposed to higher CO levels. Exposure of healthy individuals 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.[214] Additional information on CO related health effects can be found in the Carbon Monoxide Air Quality Criteria Document (CO AQCD).[215] [216]

5. Air Toxics

The population experiences an elevated risk of cancer and noncancer health effects from exposure to the class of pollutants known collectively as "air toxics."[217] Fuel combustion contributes to ambient levels of air toxics that can include, but are not limited to, acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, ethanol, naphthalene and peroxyacetyl nitrate

[212] U.S. EPA (2008). *Integrated Science Assessment for Oxides of Nitrogen—Health Criteria (Final Report).* EPA/600/R–08/071. Washington, DC,: U.S.EPA. Retrieved on March 19, 2009 from *http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=194645.*

[213] U.S. EPA. (2008). *Integrated Science Assessment (ISA) for Sulfur Oxides—Health Criteria (Final Report).* EPA/600/R–08/047F. Washington, DC: U.S. Environmental Protection Agency. Retrieved on March 18, 2009 from *http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=198843.*

[214] U.S. EPA (2000). Air Quality Criteria for Carbon Monoxide, EPA/600/P–99/001F. This document is available in Docket EPA–HQ–OAR–2004–0008.

[215] U.S. EPA (2000). Air Quality Criteria for Carbon Monoxide, EPA/600/P–99/001F. This document is available in Docket EPA–HQ–OAR–2004–0008.

[216] The CO NAAQS is currently under review and the EPA is considering all available science on CO health effects, including information which has been published since 2000, in the development of the upcoming CO Integrated Science Assessment Document (ISA). A second draft of the CO ISA was completed in September 2009 and was submitted for review by the Clean Air Scientific Advisory Committee (CASAC) of EPA's Science Advisory Board. For more information, *see http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=213229.*

[217] U. S. EPA. 2002 National-Scale Air Toxics Assessment. *http://www.epa.gov/ttn/atw/nata2002/risksum.html.*

(PAN). Acrolein, benzene, 1,3-butadiene, formaldehyde and naphthalene have significant contributions from mobile sources and were identified as national or regional risk drivers in the 2002 National-scale Air Toxics Assessment (NATA).[218] PAN, which is formed from precursor compounds by atmospheric processes, is not assessed in NATA. Emissions and ambient concentrations of compounds are discussed in Chapter 3 of the RIA and Section VI.D.3 of this preamble.

a. Acetaldehyde

Acetaldehyde is classified in EPA's IRIS database as a probable human carcinogen, based on nasal tumors in rats, and is considered toxic by the inhalation, oral, and intravenous routes.[219] Acetaldehyde is reasonably anticipated to be a human carcinogen by the U.S. DHHS in the 11th Report on Carcinogens and is classified as possibly carcinogenic to humans (Group 2B) by the IARC.[220] [221] EPA is currently conducting a reassessment of cancer risk from inhalation exposure to acetaldehyde.

The primary noncancer effects of exposure to acetaldehyde vapors include irritation of the eyes, skin, and respiratory tract.[222] In short-term (4 week) rat studies, degeneration of olfactory epithelium was observed at various concentration levels of acetaldehyde exposure.[223] [224] 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.[225] The agency is currently conducting a reassessment of the health hazards from inhalation exposure to acetaldehyde.

b. Acrolein

Acrolein is extremely acrid and irritating to humans when inhaled, with acute exposure resulting in upper respiratory tract irritation, mucus hypersecretion and congestion. 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.[226] These data and additional studies regarding acute effects of human exposure to acrolein are summarized in EPA's 2003 IRIS Human Health Assessment for acrolein.[227] Evidence available from studies in humans indicate that levels as low as 0.09 ppm (0.21 mg/m^3) for five minutes may elicit subjective complaints of eye irritation with increasing concentrations leading to more extensive eye, nose and respiratory symptoms.[228] Lesions to the lungs and upper respiratory tract of rats, rabbits, and hamsters have been observed after subchronic exposure to acrolein.[229] Acute exposure effects in animal studies report bronchial hyper-responsiveness.[230] In a recent study, the acute respiratory irritant effects of exposure to 1.1 ppm acrolein were more pronounced in mice with allergic airway disease by comparison to non-diseased mice which also showed decreases in respiratory rate.[231] 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.

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.[232] The IARC determined in 1995 that acrolein was not classifiable as to its carcinogenicity in humans.[233]

c. Benzene

The EPA's IRIS database lists 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 mice.[234] [235] [236] EPA states in its IRIS database that data indicate a causal relationship between benzene exposure and acute lymphocytic leukemia and suggest a relationship between benzene exposure and chronic non-lymphocytic leukemia and chronic lymphocytic leukemia. The International Agency for Research on Carcinogens (IARC) has determined that benzene is a human carcinogen and the U.S. Department of Health and Human Services (DHHS) has characterized

[218] U.S. EPA .2009. National-Scale Air Toxics Assessment for 2002. *http://www.epa.gov/ttn/atw/nata2002.*

[219] U.S. EPA. 1991. Integrated Risk Information System File of Acetaldehyde. Research and Development, National Center for Environmental Assessment, Washington, DC. This material is available electronically at *http://www.epa.gov/iris/subst/0290.htm.*

[220] 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.*

[221] 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.

[222] 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.*

[223] 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.

[224] 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.

[225] 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.

[226] Sim VM, Pattle RE. Effect of possible smog irritants on human subjects JAMA165: 1980–2010, 1957.

[227] U.S. EPA (U.S. Environmental Protection Agency). (2003) Toxicological review of acrolein in support of summary information on Integrated Risk Information System (IRIS) National Center for Environmental Assessment, Washington, DC. EPA/635/R–03/003. Available online at: *http://www.epa.gov/ncea/iris.*

[228] 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

[229] Integrated Risk Information System File of Acrolein. Office of Research and Development, National Center for Environmental Assessment, Washington, DC. This material is available at *http://www.epa.gov/iris/subst/0364.htm.*

[230] U.S. EPA (U.S. Environmental Protection Agency). (2003) Toxicological review of acrolein in support of summary information on Integrated Risk Information System (IRIS) National Center for Environmental Assessment, Washington, DC. EPA/635/R–03/003. Available online at: *http://www.epa.gov/ncea/iris.*

[231] 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.

[232] 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.*

[233] 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.

[234] 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.*

[235] 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.

[236] 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.

benzene as a known human carcinogen.[237] [238]

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.[239] [240] The most sensitive noncancer effect observed in humans, based on current data, is the depression of the absolute lymphocyte count in blood.[241] [242] 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.[243] [244] [245] [246] EPA's IRIS program has not yet evaluated these new data.

d. 1,3–Butadiene

EPA has characterized 1,3-butadiene as carcinogenic to humans by inhalation.[247] [248] 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.[249] [250] 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; 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.[251]

e. Ethanol

EPA is conducting an assessment of the cancer and noncancer effects of exposure to ethanol, a compound which is not currently listed in EPA's IRIS. A description of these effects to the extent that information is available will be presented, as required by Section 1505 of EPAct, in a Report to Congress on public health, air quality and water resource impacts of fuel additives. We expect to release that report in 2010.

Extensive data are available regarding adverse health effects associated with the ingestion of ethanol while data on inhalation exposure effects are sparse. As part of the IRIS assessment, pharmacokinetic models are being evaluated as a means of extrapolating across species (animal to human) and across exposure routes (oral to inhalation) to better characterize the health hazards and dose-response relationships for low levels of ethanol exposure in the environment.

The IARC has classified "alcoholic beverages" as carcinogenic to humans based on sufficient evidence that malignant tumors of the mouth, pharynx, larynx, esophagus, and liver are causally related to the consumption of alcoholic beverages.[252] The U.S. DHHS in the 11th Report on Carcinogens also identified "alcoholic beverages" as a known human carcinogen (they have not evaluated the cancer risks specifically from exposure to ethanol), with evidence for cancer of the mouth, pharynx, larynx, esophagus, liver and breast.[253] There are no studies reporting carcinogenic effects from inhalation of ethanol. EPA is currently evaluating the available human and animal cancer data to identify which cancer type(s) are the most relevant to an assessment of risk to humans from a low-level oral and inhalation exposure to ethanol.

Noncancer health effects data are available from animal studies as well as epidemiologic studies. The epidemiologic data are obtained from studies of alcoholic beverage consumption. Effects include neurological impairment, developmental effects, cardiovascular effects, immune system depression, and effects on the liver, pancreas and reproductive system.[254] There is evidence that children prenatally exposed via mothers' ingestion of alcoholic beverages during pregnancy are at increased risk of hyperactivity and attention deficits, impaired motor coordination, a lack of regulation of social behavior or poor psychosocial functioning, and deficits in cognition, mathematical ability, verbal fluency, and spatial

[237] 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.

[238] U.S. Department of Health and Human Services National Toxicology Program 11th Report on Carcinogens available at: *http://ntp.niehs.nih.gov/go/16183.*

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[242] 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.*

[243] 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.

[244] 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.

[245] Lan, Qing, Zhang, L., Li, G., Vermeulen, R., *et al.* (2004) Hematotoxically in Workers Exposed to Low Levels of Benzene. Science 306: 1774–1776.

[246] 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.

[247] 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.*

[248] 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.*

[249] 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.

[250] 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.*

[251] 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.

[252] International Agency for Research on Cancer (IARC). 1988. Monographs on the evaluation of carcinogenic risk of chemicals to humans, Volume 44, Alcohol Drinking, World Health Organization, Lyon, France.

[253] 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.*

[254] U.S. Department of Health and Human Services. 2000. 10th Special Report to the U.S. Congress on Alcohol and Health. June. 2000.

memory.[255 256 257 258 259 260 261 262] In some people, genetic factors influencing the metabolism of ethanol can lead to differences in internal levels of ethanol and may render some subpopulations more susceptible to risks from the effects of ethanol.

f. Formaldehyde

Since 1987, EPA has classified formaldehyde as a probable human carcinogen based on evidence in humans and in rats, mice, hamsters, and monkeys.[263] 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.[264 265] In an analysis of the lymphohematopoietic cancer mortality from an extended follow-up of these workers, NCI confirmed an association between lymphohematopoietic cancer risk and peak exposures.[266] 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.[267] 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.[268] Recently, the IARC re-classified formaldehyde as a human carcinogen (Group 1).[269]

Formaldehyde exposure also causes a range of noncancer health effects, including irritation of the eyes (burning and watering of the eyes), nose and throat. Effects from repeated exposure in humans include respiratory tract irritation, chronic bronchitis and nasal epithelial lesions such as metaplasia and loss of cilia. Animal studies suggest that formaldehyde may also cause airway inflammation—including eosinophil infiltration into the airways. There are several studies that suggest that formaldehyde may increase the risk of asthma—particularly in the young.[270 271]

g. Peroxyacetyl nitrate (PAN)

Peroxyacetyl nitrate (PAN) has not been evaluated by EPA's IRIS program. Information regarding the potential carcinogenicity of PAN is limited. As noted in the EPA air quality criteria document for ozone and related photochemical oxidants, cytogenetic studies indicate that PAN is not a potent mutagen, clastogen (a compound that can cause breaks in chromosomes), or DNA-damaging agent in mammalian cells either in vivo or in vitro. Some studies suggest that PAN may be a weak bacterial mutagen at high concentrations much higher than exist in present urban atmospheres.[272]

Effects of ground-level smog causing intense eye irritation have been attributed to photochemical oxidants, including PAN.[273] Animal toxicological information on the inhalation effects of the non-ozone oxidants has been limited to a few studies on PAN. Acute exposure to levels of PAN can cause changes in lung morphology, behavioral modifications, weight loss, and susceptibility to pulmonary infections. Human exposure studies indicate minor pulmonary function effects at high PAN concentrations, but large inter-individual variability precludes definitive conclusions.[274]

h. Naphthalene

Naphthalene is found in small quantities in gasoline and diesel fuels. Naphthalene emissions have been measured in larger quantities in both gasoline and diesel exhaust compared with evaporative emissions from mobile sources, indicating it is primarily a product of combustion. EPA released an external review draft of a reassessment of the inhalation carcinogenicity of naphthalene based on a number of recent animal carcinogenicity studies.[275] The draft reassessment completed external peer review.[276] Based on external peer review

[255] Goodlett CR, KH Horn, F Zhou. 2005. Alcohol teratogeniesis: mechanisms of damage and strategies for intervention. Exp. Biol. Med. 230:394–406.

[256] Riley EP, CL McGee. 2005. Fetal alcohol spectrum disorders: an overview with emphasis on changes in brain and behavior. Exp. Biol. Med. 230:357–365.

[257] Zhang X, JH Sliwowska, J Weinberg. 2005. Prenatal alcohol exposure and fetal programming: effects on neuroendocrine and immune function. Exp. Biol. Med. 230:376–388.

[258] Riley EP, CL McGee, ER Sowell. 2004. Teratogenic effects of alcohol: a decade of brain imaging. Am. J. Med. Genet. Part C: Semin. Med. Genet. 127:35–41.

[259] Gunzerath L, V Faden, S Zakhari, K Warren. 2004. National Institute on Alcohol Abuse and Alcoholism report on moderate drinking. Alcohol. Clin. Exp. Res. 28:829–847.

[260] World Health Organization (WHO). 2004. Global status report on alcohol 2004. Geneva, Switzerland: Department of Mental Health and Substance Abuse. Available: *http://www.who.int/substance_abuse/publications/global_status_report_2004_overview.pdf*

[261] Chen W–JA, SE Maier, SE Parnell, FR West. 2003. Alcohol and the developing brain: neuroanatomical studies. Alcohol Res. Health 27:174–180.

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[263] 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.

[264] 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.

[265] 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.

[266] Beane Freeman, L. E.; Blair, A.; Lubin, J. H.; Stewart, P. A.; Hayes, R. B.; Hoover, R. N.; Hauptmann, M. 2009. Mortality from lymphohematopoietic malignancies among workers in formaldehyde industries: The National Cancer Institute cohort. J. National Cancer Inst. 101: 751–761.

[267] Pinkerton, L. E. 2004. Mortality among a cohort of garment workers exposed to formaldehyde: an update. Occup. Environ. Med. 61: 193–200.

[268] 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.

[269] 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.

[270] Agency for Toxic Substances and Disease Registry (ATSDR). 1999. Toxicological profile for Formaldehyde. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service. *http://www.atsdr.cdc.gov/toxprofiles/tp111.html.*

[271] WHO (2002) Concise International Chemical Assessment Document 40: Formaldehyde. Published under the joint sponsorship of the United Nations Environment Programme, the International Labour Organization, and the World Health Organization, and produced within the framework of the Inter-Organization Programme for the Sound Management of Chemicals. Geneva.

[272] U.S. EPA. 2006. Air quality criteria for ozone and related photochemical oxidants (Ozone CD). Research Triangle Park, NC: National Cetner for Environmental Assesssment; report no. EPA/600/R–05/004aF–cF.3v. page 5–78 Available at *http://cfpub.epa.gov/ncea/.*

[273] 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. page 5–63. This document is available in Docket EPA–HQ–OAR–2005–0161. This document may be accessed electronically at: *http://www.epa.gov/ttn/naaqs/standards/ozone/s_o3_cr_cd.html.*

[274] 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. page 5–78. This document is available in Docket EPA–HQ–OAR–2005–0161. This document may be accessed electronically at: *http://www.epa.gov/ttn/naaqs/standards/ozone/s_o3_cr_cd.html.*

[275] 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.*

[276] 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.*

comments received, 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. 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.[277] 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.[278] Naphthalene also causes a number of chronic non-cancer effects in animals, including abnormal cell changes and growth in respiratory and nasal tissues.[279]

i. Other Air Toxics

In addition to the compounds described above, other compounds in gaseous hydrocarbon and PM emissions from vehicles will be affected by today's final action. Mobile source air toxic compounds that will potentially be impacted include ethylbenzene, polycyclic organic matter, propionaldehyde, toluene, and xylene. Information regarding the health effects of these compounds can be found in EPA's IRIS database.[280]

F. Environmental Effects of Criteria and Air Toxic Pollutants

In this section we discuss some of the environmental effects of PM and its precursors such as visibility impairment, atmospheric deposition, and materials damage and soiling, as well as environmental effects associated with the presence of ozone in the ambient air, such as impacts on plants, including trees, agronomic crops and urban ornamentals, and environmental effects associated with air toxics.

1. Visibility

Visibility can be defined as the degree to which the atmosphere is transparent to visible light.[281] 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.[282] [283]

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).[284] 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.

2. 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 depends on 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 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 hazard posed by several pollutants including mercury, dioxin and PCBs.[285]

Adverse impacts on water quality can occur when atmospheric contaminants deposit to the water surface or when material deposited on the land enters a waterbody through runoff. Potential impacts of atmospheric deposition to waterbodies include those related to both nutrient and toxic inputs. Adverse effects to human health and welfare can occur from the addition of excess nitrogen via atmospheric deposition. The nitrogen-nutrient enrichment contributes to toxic algae blooms and zones of depleted oxygen, which can lead to fish kills, frequently in coastal waters. Deposition of heavy metals or other toxins may lead to the human ingestion of contaminated fish, human ingestion of contaminated water, damage to the marine ecology, and limits to 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

[277] 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.*

[278] International Agency for Research on Cancer (IARC). (2002). Monographs on the Evaluation of the Carcinogenic Risk of Chemicals for Humans. Vol. 82. Lyon, France.

[279] 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.*

[280] U.S. EPA Integrated Risk Information System (IRIS) database is available at: *http://www.epa.gov/iris.*

[281] National Research Council, 1993. Protecting Visibility in National Parks and Wilderness Areas. National Academy of Sciences Committee on Haze in National Parks and Wilderness Areas. National Academy Press, Washington, DC. This document is available in Docket EPA–HQ–OAR–2005–0161. This book can be viewed on the National Academy Press Web site at *http://www.nap.edu/books/0309048443/html/.*

[282] 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–2005–0161.

[283] 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–2005–0161.

[284] These areas are defined in CAA section 162 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.

[285] 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–2005–0161.

investigated.[286 287 288 289 290]

Atmospheric deposition of nitrogen and sulfur contributes to acidification, altering biogeochemistry and affecting animal and plant life in terrestrial and aquatic ecosystems across the U.S. The sensitivity of terrestrial and aquatic ecosystems to acidification from nitrogen and sulfur deposition is predominantly governed by geology. Prolonged exposure to excess nitrogen and sulfur deposition in sensitive areas acidifies lakes, rivers and soils. Increased acidity in surface waters creates inhospitable conditions for biota and affects the abundance and nutritional value of preferred prey species, threatening biodiversity and ecosystem function. Over time, acidifying deposition also removes essential nutrients from forest soils, depleting the capacity of soils to neutralize future acid loadings and negatively affecting forest sustainability. Major effects include a decline in sensitive forest tree species, such as red spruce (*Picea rubens*) and sugar maple (*Acer saccharum*), and a loss of biodiversity of fishes, zooplankton, and macro invertebrates.

In addition to the role nitrogen deposition plays in acidification, nitrogen deposition also causes ecosystem nutrient enrichment leading to eutrophication that alters biogeochemical cycles. Excess nitrogen also leads to the loss of nitrogen sensitive lichen species as they are outcompeted by invasive grasses as well as altering the biodiversity of terrestrial ecosystems, such as grasslands and meadows. For a broader explanation of the topics treated here, refer to the description in Section 3.6.2 of the RIA.

Adverse impacts on soil chemistry and plant life have been observed for areas heavily influenced 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.

Atmospheric deposition of pollutants 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. Atmospheric deposition may 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.

3. 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 impaired photosynthesis, both of which can lead to reduced plant growth and reproduction, resulting in reduced crop yields, forestry production, and use of sensitive ornamentals in landscaping. In addition, the impairment of photosynthesis, the process by which the plant makes carbohydrates (its source of energy and food), can lead to a subsequent reduction in root growth and carbohydrate storage below ground, resulting in other, more subtle plant and ecosystems impacts.

These latter impacts 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 Ozone Air Quality Criteria Document presents more detailed information on ozone effects on vegetation and ecosystems.

4. Environmental Effects of Air Toxics

Fuel combustion emissions contribute to ambient levels of pollutants that contribute to adverse effects on vegetation. PAN is a well-established phytotoxicant causing visible injury to leaves that can appear as metallic glazing on the lower surface of leaves with some leafy vegetables exhibiting particular sensitivity (*e.g.,* spinach, lettuce, chard).[291 292 293] PAN has been demonstrated to inhibit photosynthetic and non-photosynthetic processes in plants and retard the growth of young navel orange trees.[294 295] In addition to its oxidizing capability, PAN contributes nitrogen to forests and other vegetation via uptake as well as dry and wet deposition to surfaces. As noted in Section IX, nitrogen deposition can lead to saturation of terrestrial ecosystems and research is needed to understand the impacts of excess nitrogen deposition experienced in some areas of the country on water quality and ecosystems.[296]

Volatile organic compounds (VOCs), some of which are considered air toxics, have long been suspected to play a role in vegetation damage.[297] In laboratory experiments, a wide range of tolerance

[286] 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–2005–0161.

[287] Gao, Y., E.D. Nelson, M.P. Field, et al. 2002. Characterization of atmospheric trace elements on PM2.5 particulate matter over the New York-New Jersey harbor estuary. *Atmos. Environ.* 36: 1077–1086.

[288] 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.

[289] 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.

[290] 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.

[291] Nouchi I, S Toyama. 1998. Effects of ozone and peroxyacetyl nitrate on polar lipids and fatty acids in leaves of morning glory and kidney bean. Plant Physiol. 87:638–646.

[292] Oka E, Y Tagami, T Oohashi, N Kondo. 2004. A physiological and morphological study on the injury caused by exposure to the air pollutant, peroxyacetyl nitrate (PAN), based on the quantitative assessment of the injury. J Plant Res. 117:27–36.

[293] Sun E–J, M–H Huang. 1995. Detection of peroxyacetyl nitrate at phytotoxic level and its effects on vegetation in Taiwan. Atmos. Env. 29:2899–2904.

[294] Koukol J, WM Dugger, Jr., RL Palmer. 1967. Inhibitory effect of peroxyacetyl nitrate on cyclic photophosphorylation by chloroplasts from black valentine bean leaves. Plant Physiol. 42:1419–1422.

[295] Thompson CR, G Kats. 1975. Effects of ambient concentrations of peroxyacetyl nitrate on navel orange trees. Env. Sci. Technol. 9:35–38.

[296] Bytnerowicz A, ME Fenn. 1995. Nitrogen deposition in California forests: A Review. Environ. Pollut. 92:127–146.

[297] US EPA. 1991. Effects of organic chemicals in the atmosphere on terrestrial plants. EPA/600/3–91/001.

to VOCs has been observed.[298] Decreases in harvested seed pod weight have been reported for the more sensitive plants, and some studies have reported effects on seed germination, flowering and fruit ripening. Effects of individual VOCs or their role in conjunction with other stressors (*e.g.,* acidification, drought, temperature extremes) have not been well studied. In a recent study of a mixture of VOCs including ethanol and toluene on herbaceous plants, significant effects on seed production, leaf water content and photosynthetic efficiency were reported for some plant species.[299]

Research suggests an adverse impact of vehicle exhaust on plants, which has in some cases been attributed to aromatic compounds and in other cases to nitrogen oxides.[300] [301] [302] The impacts of VOCs on plant reproduction may have long-term implications for biodiversity and survival of native species near major roadways. Most of the studies of the impacts of VOCs on vegetation have focused on short-term exposure and few studies have focused on long-term effects of VOCs on vegetation and the potential for metabolites of these compounds to affect herbivores or insects.

VII. Impacts on Cost of Renewable Fuels, Gasoline, and Diesel

We have assessed the impacts of the renewable fuel volumes required by EISA on their costs and on the costs of the gasoline and diesel fuels into which the renewable fuels will be blended. More details of feedstock costs are addressed in Section VIII.A.

A. Renewable Fuel Production Costs

1. Ethanol Production Costs

a. Corn Ethanol

A significant amount of work has been done in the last decade surveying and modeling the costs involved in producing ethanol from corn in order to serve business and investment purposes as well as to try to educate energy policy decisions. Corn ethanol costs for our work were estimated using models developed and maintained by USDA. Their work has been described in a peer-reviewed journal paper on cost modeling of the dry-grind corn ethanol process, and compares well with cost information found in surveys of existing plants. [303] [304] The USDA models were adjusted to reflect the energy usage we anticipate for the average ethanol plant in 2022 and intermediate years, as well as the prices of energy and agricultural commodities as projected by AEO and the FASOM model respectively.

For our policy case scenario, we used corn prices of $3.60/bu in 2022 with corresponding DDGS prices of $124.74/ton (all 2007$). These estimates are taken from agricultural economics modeling work done for this rule using the Forestry and Agricultural Sector Optimization Model (see Section VIII.A).

For natural gas-fired ethanol production producing dried co-product (currently describes the largest fraction of the industry), in the policy case corn feedstock minus DDGS sale credit represents about 54% of the final per-gallon cost, while utilities, facility, chemical and enzymes, and labor comprise about 22%, 13%, 7%, and 4%, respectively. Thus, the cost of ethanol production is most sensitive to the prices of corn and the primary co-product, DDGS, and relatively insensitive to economy of scale over the range of plant sizes typically seen (40–100 MMgal/yr).

We expect that several process fuels will be used to produce corn ethanol (see RIA Section 1.4), which are presented by their projected 2022 volume production share in Table VII.A.1–1 and cost impacts for each in Table VII.A.1–2.[305]

TABLE VII.A.1–1—PROJECTED 2022 BREAKDOWN OF FUEL TYPES USED TO ESTIMATE PRODUCTION COST OF CORN ETHANOL, PERCENT SHARE OF TOTAL PRODUCTION VOLUME

Plant type	Fuel type				Total by plant type
	Biomass %	Coal %	Natural gas %	Biogas %	All fuels
Coal/Biomass Boiler	11	0			11
Coal/Biomass Boiler + CHP	10	4			14
Natural Gas Boiler			49	14	63
Natural Gas Boiler + CHP			12		12
Total by Fuel Type	21	4	61	14	100

TABLE VII.A.1–2—PROJECTED 2022 BREAKDOWN OF COST IMPACTS BY FUEL TYPE USED IN ESTIMATING PRODUCTION COST OF CORN ETHANOL, DOLLARS PER GALLON RELATIVE TO NATURAL GAS BASELINE

Plant type	Fuel type				Total by plant type
	Biomass [a]	Coal	Natural gas	Biogas [b]	All fuels
Coal/Biomass Boiler	+$0.009	+$0.009			

[298] Cape JN, ID Leith, J Binnie, J Content, M Donkin, M Skewes, DN Price AR Brown, AD Sharpe. 2003. Effects of VOCs on herbaceous plants in an open-top chamber experiment. Environ. Pollut. 124:341–343.

[299] Cape JN, ID Leith, J Binnie, J Content, M Donkin, M Skewes, DN Price AR Brown, AD Sharpe. 2003. Effects of VOCs on herbaceous plants in an open-top chamber experiment. Environ. Pollut. 124:341–343.

[300] Viskari E–L. 2000. Epicuticular wax of Norway spruce needles as indicator of traffic pollutant deposition. Water, Air, and Soil Pollut. 121:327–337.

[301] Ugrekhelidze D, F Korte, G Kvesitadze. 1997. Uptake and transformation of benzene and toluene by plant leaves. Ecotox. Environ. Safety 37:24–29.

[302] Kammerbauer H, H Selinger, R Rommelt, A Ziegler-Jons, D Knoppik, B Hock. 1987. Toxic components of motor vehicle emissions for the spruce Pciea abies. Environ. Pollut. 48:235–243.

[303] Kwaitkowski, J.R., Macon, A., Taylor, F., Johnston, D.B.; *Industrial Crops and Products* 23 (2006) 288–296.

[304] Shapouri, H., Gallagher, P.; USDA's 2002 Ethanol Cost-of-Production Survey (published July 2005).

[305] Projected fuel mix was taken from Mueller, S., Energy Research Center at the University of Chicago; An Analysis of the Projected Energy Use of Future Dry Mill Corn Ethanol Plants (2010–2030); cost estimates were derived from modifications to the USDA process models.

TABLE VII.A.1–2—PROJECTED 2022 BREAKDOWN OF COST IMPACTS BY FUEL TYPE USED IN ESTIMATING PRODUCTION COST OF CORN ETHANOL, DOLLARS PER GALLON RELATIVE TO NATURAL GAS BASELINE—Continued

Plant type	Fuel type				Total by plant type
	Biomass [a]	Coal	Natural gas	Biogas [b]	All fuels
Coal/Biomass Boiler + CHP	−0.021	−0.021			
Natural Gas Boiler			baseline	+$0.00	
Natural Gas Boiler + CHP			−$0.032		
Total by Fuel Type					−$0.006

[a] Assumes biomass has same plant-delivered cost as coal.
[b] Assumes biogas has same plant-delivered cost as natural gas.

In addition to the primary fuel type used by ethanol production facilities, we also anticipate new technologies and efficiency improvements will impact the cost of ethanol production. More efficient motors and turbines are currently under development and are likely to be adopted by ethanol producers as ways to lower green house gas emissions and reduce energy costs. Several new process technologies, including corn oil extraction, corn fractionation, cold starch fermentation, and ethanol dehydration membranes will allow ethanol producers to further reduce energy consumption and produce higher value co-products. These technologies are discussed in sections 1.4.1.3 and 1.5.1.3 of the RIA. In order to reflect the cost advantages of ethanol producers using these technologies the USDA models were adapted to take into account the capital costs, lower energy usage, and higher value co-products that result from the adoption of these new technologies. The projected adoption rates of these technologies, and their impacts on the production cost of corn ethanol, are summarized in Table VII.A.1–3 below. More detail on how the USDA models were adjusted and the impact this had on the average price of ethanol production can be found in section 4.1.1.1 of the RIA.

TABLE VII.A.1–3—PROJECTED COST IMPACTS OR NEW CORN ETHANOL TECHNOLOGIES

Technology	Percent of plants adopting technology (percent)	Cost impact (change from baseline)	Weighted cost impact
More Efficient Boilers/Motors/Turbines	100	Baseline	$0.00/gal
Raw Starch Hydrolysis	22	−$0.066/gal	−$0.015/gal
Corn Fractionation	20	−$0.093/gal	−$0.019/gal
Corn Oil Extraction	70	−$0.079/gal	−$0.055/gal
Membrane Separation	5	−$0.064/gal	−$0.003/gal
Total Cost Impact	N/A	N/A	−$0.092/gal

Whether or not the distillers grains and solubles (DGS) are dried also has an impact on the cost of ethanol production. Drying the DGS is an energy intensive process and results in a significant increase in energy usages as well as cost. The advantages of dry DGS are reduced transportation costs and a product that is less susceptible to spoilage, and can therefore be sold to a much wider market. If the DGS can be sold wet, the cost of ethanol production can be reduced by $0.083 per gallon. A 2007 survey of ethanol producers indicated that 37% of DGS were being sold wet. We anticipate that this percentage of wet DGS will remain constant in 2022. The net cost impact of selling 37% of the DGS wet is an average cost reduction of $0.031 per gallon.

TABLE VII.A.1–4—AVERAGE ETHANOL COST OF PRODUCTION

Baseline Cost of Production (Natural Gas, no new technologies, 100% dry DGS).	$1.627/gal
Fuel Type Cost Impact	−$0.006/gal
New Technology Cost Impact	−$0.092/gal
DGS Drying Cost Impact	−$0.031/gal
Average Cost of Ethanol Production (2022).	$1.499/gal

Based on energy prices from EIA's Annual Energy Outlook (AEO) April 2009 updated reference case ($116/bbl crude oil), we arrive at a production cost of $1.50/gal. More details on the ethanol production cost estimates can be found in Chapter 4 of the RIA. This estimate represents the full cost to the plant operator, including purchase of feedstocks, energy required for operations, capital depreciation, labor, overhead, and denaturant, minus revenue from sale of co-products. The capital cost for a 65 MMgal/yr natural gas fired dry mill plant is estimated at $97MM (the projected average size of such plants in 2022).

Similarly, coal and biomass fired plants were assumed to be 110 MGY in capacity, with an estimated capital cost of $184MM.[306] Despite the lower operating costs of coal and biomass fired plants the higher capital costs result, on average, ethanol produced in a facility using coal or biomass as a primary energy source results in a per-gallon cost $0.01/gal higher compared to production using natural gas. See Chapter 4.1 of the RIA for more details.

[306] Capital costs for a natural gas fired plant were taken from USDA cost model; incremental costs to use coal as the primary energy source were derived from conversations with ethanol plant construction contractors.

In this cost estimation work, we did not assume any pelletizing of DDGS. Pelletizing is expected to improve ease of shipment to more distant markets, which may become more important at the larger volumes projected for the future. However, while many in industry are aware of this technology, those we spoke with are not employing it in their plants, and do not expect widespread use in the foreseeable future. According to USDA's model, pelletizing adds $0.035/gal to the ethanol production cost.

Note that the ethanol production cost given here does not account for any subsidies on production or sale of ethanol, and is independent of the market price of ethanol.

b. Cellulosic Ethanol

i. Feedstock Costs

Cellulosic Feedstock Costs

To estimate the cost of producing cellulosic biofuels, it was first necessary to estimate the cost of harvesting, storing, processing and transporting the feedstocks to the biofuel production facilities. Ethanol or other cellulosic biofuels can be produced from crop residues such as corn stover, wheat, rice, oat, and barley straw, sugar cane bagasse, and sorghum, from other cellulosic plant matter such as forest thinnings and forest-fuel removal, pulping residues, and from the cellulosic portions of municipal solid waste (MSW).

Our feedstock supply analysis projected that energy crops would be the most abundant of the cellulosic feedstocks, comprising about 49% of the total biomass feedstock inventory. Agricultural residues, predominantly corn stover, make up approximately 36% of the total, followed by MSW at approximately 15% and forestry residue at about 1%. At present, there are no commercial sized cellulosic ethanol plants in the U.S. Likewise, there are no commercially proven, fully-integrated feedstock supply systems dedicated to providing any of the feedstocks we mentioned to ethanol facilities of any size, although certain biomass is harvested for other purposes. For this reason, our feedstock cost estimates are projections and not based on any existing market data.

Our feedstock costs include an additional preprocessing cost that many other feedstock cost estimates do not include—thus our costs may seem higher. We used biofuel plant cost estimates provided by NREL which no longer includes the cost for finely grinding the feedstock prior to feeding it to the biofuel plant. Thus, our feedstock costs include an $11 per dry ton cost to account for the costs of this grinding operation, regardless of whether this operation occurs in the field or at the plant gate.

Crop Residue and Energy Crops

Crop residue harvest is currently a secondary harvest; that is they are harvested or gathered only after the prime crop has been harvested. In most northern areas, the harvest periods will be short due to the onset of winter weather. In some cases, it may be necessary to gather a full year's worth of residue within just a few weeks. Consequently, to accomplish this hundreds of pieces of farm equipment will be required for a few weeks each year to complete a harvest. Winter conditions in the South make it somewhat easier to extend the harvest periods; in some cases, it may be possible to harvest a residue on an as needed basis.

During the corn grain harvest, generally only the cob and the leaves above the cob are taken into the harvester. Thus, the stover harvest would likely require some portion of the standing-stalks be mowed or shredded, following which the entire residue, including that discharged from the combine residue-spreader, would need to be raked. Balers, likely a mix of large round and large square balers, would follow the rakes. The bales would then be removed from the field, usually to the field-side in the first operation of the actual harvest, following which they would then be hauled to a satellite facility for intermediate storage. For our analysis we assumed that bales would then be hauled by truck and trailer to the processing plant on an as needed basis.

The small grain straws (wheat, rice, oats, barley, sorghum) are cut near the ground at the time of grain harvest and thus likely won't require further mowing or shredding. They will likely need to be raked into a windrow prior to baling. Because small grain straws have been baled and stored for many years, we don't expect unusual requirements for handling these residues. Their harvest and storage costs will likely be less than those for corn stover, but their overall quantity is much less than corn stover (corn stover makes up about 68% of all the crop residues), so we don't expect their lower costs to have, individually or collectively, a huge effect on the overall feedstock costs. Thus, we project that for several years, the feedstock costs will be largely a function of the cost to harvest, store, and haul corn stover.

For the crop residues, we relied on the FASOM agricultural cost model for farm harvesting and collection costs. FASOM estimates corn stover would cost $34.49 per dry ton at the farm gate. This reflects the cost to mow, rake, bale, and field haul the bales and replace nutrients. This farm gate cost could be lower if new equipment is developed that would allow the farmer to harvest the corn stover at the same time as the corn. Energy crops such as switchgrass and miscanthus would be harvested, baled, stored and transported in a manner very similar to crop residues. The FASOM model estimates switch grass, which we are using to be representative of all energy crops, would be available at farm side at a cost of $40.85.

Forestry Residue

Harvest and transport costs for woody biomass in its different forms vary due to tract size, tree species, volumes removed, distance to the wood-using/storage facility, terrain, road condition, and many other considerations. There is a significant variation in these factors within the United States, so timber harvest and delivery systems must be designed to meet constraints at the local level. Harvesting costs also depend on the type of equipment used, season in which the operation occurs, along with a host of other factors. Much of the forest residue is already being harvested by logging operations, or is available from milling operations. However, the smaller branches and smaller trees proposed to be used for biofuel production are not collected for their lumber so they are normally left behind. Thus, this forest residue would have to be collected and transported out of the forest, and then most likely chipped before transport to the biofuel plant.

In general, most operators in the near future would be expected to chip at roadside in the forest, blowing the chips directly into a chip van. When the van is full it will be hauled to an end user's facility and a new van will be moved into position at the chipper. The process might change in the future as baling systems become economically feasible or as roll-off containers are proven as a way to handle logging slash. At present, most of the chipping for biomass production is done in connection with forest thinning treatments as part of a forest fire prevention strategy. The major problem associated with collecting logging residues and biomass from small trees is handling the material in the forest before it gets to the chipper. Specially-built balers and roll-off containers offer some promise to reduce this cost. Whether the material is

collected from a forest thinning operation or a commercial logging operation, chips from residues will be dirty and will require screening or some type of filtration at the end-user's facility.[307]

As with agricultural residues and energy crops we relied on the FASOM model for road side costs for forestry residue. The FASOM model estimates costs for both hardwood and softwood logging residues. We anticipate that forestry residue for the production of cellulosic biofuels would be a mixture of both hard and soft woods. In order to obtain a cost for forest residues to be used as a feedstock for cellulosic biofuels we averaged the costs of the hardwood and softwood logging residue prices reported by FASOM. This resulted in a forestry residue price of $20.79 at the roadside. Note that this does not include the cost of the grinding operation that would be required before the forestry residues can be processed by the biofuel producer.

Municipal Solid Waste

Millions of tons of municipal solid waste (MSW) continue to be disposed of in landfills across the country, despite recent large gains in waste reduction and diversion. The biomass fraction of this total stream represents a potentially significant resource for renewable energy (including electricity and biofuels). Because this waste material is already being generated, collected and transported (it would only need to be transported to a different location), its use is likely to be less expensive than other cellulosic feedstocks. One important difficulty facing those who plan to use MSW fractions for fuel production is that in many places, even today, MSW is a mixture of all types of wastes, including biomaterials such as animal fats and grease, tin, iron, aluminum, and other metals, painted woods, plastics, and glass. Many of these materials can't be used in biochemical and thermochemical ethanol production, and, in fact, would inflate the transportation costs, impede the operations at the cellulosic ethanol plant and cause an expensive waste stream for biofuel producers.

In today's regulation the definition of "renewable biomass" includes the separated yard and food waste portion of MSW. As discussed in Section III.B.4.d, we are including as part of separated yard and food waste, incidental and post-recycled paper and wood wastes. Thus, firms planning on using MSW for producing cellulosic biofuels will be required to account for those components of the waste. We offer three methods for performing such accounting. One method is "feedstock accounting" in which the components of the waste stream are inventoried to obtain the fraction representing the portion of the waste stream that qualifies as renewable biomass. The second method is that upon verification that the food and yard waste is reasonably separated, that 100 percent of such waste may be counted as renewable biomass for purpose of generating RINs. Reasonable separation is considered to occur where curbside recycling is implemented, or where technologies are employed that ensure a maximum degree of separation, including but not limited to material recovery facilities. Under the second method, the renewable portion of the fuel so produced must be verified via a carbon dating method (ASTM D–6866 method) which is specified and incorporated by reference in today's regulation. The third method is the application of a default fraction of 50% to be applied to the waste stream purchased and used by the fuel producer.

One method for sorting that would qualify to ensure reasonable separation has occurred is single stream recycling, in which the waste is sorted either at a sorting facility or at the landfill prior to dumping. There are two prominent options here. The first is that there is no sorting at the waste creation site, the home or business, and thus a single waste stream must be sorted at the facility. The second is that the sorting occurs at the waste collection facility. The sorting would likely be done by hand or by automated equipment at the facility known as material recovery facilities (MRFs). To do so by hand is very labor intensive and somewhat slower than using an automated system. In most cases the 'by-hand' system produces a slightly cleaner stream, but the high cost of labor usually makes the automated system more cost-effective. Perhaps the best approach for low cost and a clean stream is the combination of hand sorting with automated sorting.

Another method is a combination of the two which requires that there is at least some sorting at the home or business which helps to prevent contamination of the waste material, but then the final sorting occurs downstream at a sorting site, or at the landfill.

We have little data and few estimates for the cost to sort MSW. One estimate generated by our Office of Solid Waste for a combination of mechanically and manually sorting a single waste stream downstream of where the waste is generated puts the cost in the $20 to $30 per ton range. There is a risk, though, that the waste stream could still be contaminated and this would increase the cost of both transporting the material and using this material at the biofuel plant due to the toxic ash produced which would require disposal at a toxic waste facility. If a less contaminated stream is desired it would probably require sorting at the generation site—the home or business—which would likely be more costly since many more people in society would then have to be involved and special trucks would need to be used. Also, widespread participation is difficult when a change in human behavior is required as some may not be so willing to participate. Offering incentives could help to speed the transition to curbside recycling (i.e., charging a fee for nonsorted waste, or paying a small amount for sorted tree trimmings and construction and demolition waste). Assuming that curbside sorting is involved, at least in a minor way, total sorting costs might be in the $30 to $40 per ton range.

These sorting costs would be offset by the cost savings for not disposing of the waste material. Most landfills charge tipping fees, the cost to dump a load of waste into a landfill. In the United States, the national average nominal tipping fee increased fourfold from 1985 to 2000. The real tipping fee almost doubled, up from a national average (in 1997 dollars) of about $12 per ton in 1985 to just over $30 in 2000. Equally important, it is apparent that the tipping fees are much higher in densely populated regions and for areas along the U.S. coast. For example, in 2004, the tipping fees were $9 per ton in Denver and $97 per ton in Spokane. Statewide averages also varied widely, from $8 a ton in New Mexico to $75 in New Jersey. Tipping fees ranged from $21 to 98 per ton in 2006 for MSW and $18/ton to $120/ton for construction and demolition waste. It is likely that the tipping fees are highest for contaminated waste that require the disposal of the waste in more expensive waste sites that can accept the contaminated waste as opposed to a composting site. However, this same contaminated material would probably not be desirable to biofuel producers. Presuming that only the uncontaminated cellulosic waste (yard trimmings, building construction and demolition waste and some paper) is collected as feedstocks for biofuel plants, the handling and tipping fees are

[307] Personal Communication, Eini C. Lowell, Research Scientist, USDA Forest Service

likely much lower, in the $30 per ton range.[308]

The wide variance in the cost of many of these areas affecting the final cost of MSW as a cellulosic feedstock, including costs for collecting and sorting MSW as well as the tipping fees for disposing of waste materials, makes approximating the cost of MSW a difficult task. Rather than attempt to build a model ourselves that would estimate the cost of sorted MSW, we decided to contact several companies that are currently planning on using MSW as a feedstock for cellulosic biofuel production. In confidential conversations with these companies they indicated that they believed that sorted MSW would be available at a near zero cost. In one case they had already begun securing MSW sources of feedstock for future biofuel production facilities. They indicated to us that while there would be a significant cost associated with sorting the MSW, this would be offset, or nearly so, by income generated from the sale of recovered materials (paper, metals, plastics, etc.) and the avoidance of tipping fees. There would still, however, be some costs associated with the transportation and disposal of materials unfit for the biofuels production process. Based on this information, we conservatively estimate that MSW would be available for use in a cellulosic biofuel production process at a cost of $15 per ton. *See* section 4.1 of the RIA for further discussion on the cost of MSW as a feedstock for cellulosic biofuels production.

Secondary Storage and Transportation

In addition to the roadside costs cited in the preceding sections, there will also be a cost to transport the cellulosic materials from the farm or forest to the production facility. We relied on our own cost analysis to determine the transportation costs. For MSW we do not anticipate any additional costs to transport the cellulosic material to the biofuel production facility if it is sourced from within the same county as the production facility. This is because this material is already being collected and transported to a sorting center landfill, and would simply be re-routed to the production facility.

For agricultural residues, energy crops, and forestry residue, however, there will be additional costs associated with transporting them from the farm or forest side to the production facility. These costs are heavily dependent on the distance that the feedstock must be transported from the places where it is produced to the biofuel production facility. In order to estimate these costs we created a cost estimating tool that calculated transportation costs based on the distance the cellulosic material would have to be transported from the farm or forest side to the production facility. This tool relies on data provided by the National Agricultural Statistics Service for information on the availability and location of agricultural residue. Information on abandoned crop land, which was assumed to be the source of energy crops, was provided by Elliot Campbell at UC Davis. Data on the availability and location of forest residues was provided by the national forestry service. For more information on this secondary storage and transportation cost estimating tool that we used to estimate transportation costs see Chapter 4.1 of the RIA.

We also believe that some cellulosic feedstocks will require secondary storage. Agricultural residues and energy crops will generally be harvested annually, sometimes in time periods as short as a few weeks in order to complete the harvest before the onset of winter weather. The large quantity of feedstock required for a commercial scale biofuel production plant makes it highly unlikely that a year's worth of feedstock would be stored at the production facility. It is also unlikely that farmers would tolerate the baled agricultural residues or energy crops to be stored on their farms and transported to the production facility on an as needed basis unless they were compensated for the space bales occupy and damage done to their fields by the heavy traffic that would be involved in the collection of this material from their farms. Bales left exposed to the weather would also decompose much more rapidly resulting in a higher cost per ton of usable cellulosic material to biofuel producers. This loss would be minimized if the bales are stored in covered sheds. Our cost estimating tool takes these secondary storage costs into account for agricultural residues and energy crops. MSW and forestry residues have no secondary storage costs as they can be collected and transported on an as needed basis.

Cellulosic Feedstock Cost Curve

When the various costs described above are combined, together with the cost of grinding the cellulosic material ($11/ton), the result is not a single cost, but rather a cost curve. This is due to the fact that each feedstock source has a unique price based on the FASOM estimate of the cost of production of the feedstock and the cost of transportation and secondary storage (if appropriate), where feedstocks have the lowest total cost in the parts of the country where the cellulosic plants are likely to be located. The cost per ton of feedstock is lower when the total production of cellulosic biofuel is low as the cheapest feedstocks are utilized first. As cellulosic biofuel production increases, so does the cost of cellulosic feedstocks, as more expensive sources of feedstock are used. The cost curve for cellulosic feedstocks for the production of up to 16 billion ethanol equivalent gallons of cellulosic biofuels is shown in Graph VIII.A.1–1 below. The average cost of cellulosic feedstock at a production level of 16 billion ethanol equivalent gallons is $67.42, and is summarized in Table VII.A.1–5.

[308] We plan on conducting a more thorough analysis of tipping fees by waste type for the final rulemaking.

Figure VII.A.1-1

Cellulosic Feedstock Cost Curve

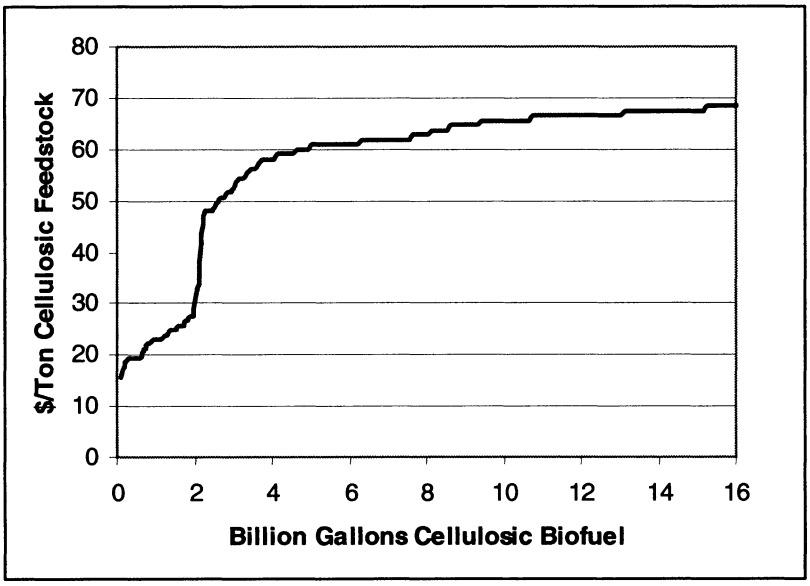

TABLE VII.A.1–5—SUMMARY OF CELLULOSIC FEEDSTOCK COSTS

Ag Residue	Switchgrass	Forest Residue	MSW
36% of Total Feedstock	49% of total Feedstock	1% of Total Feedstock	15% of Total Feedstock
Mowing, Raking, Baling, Hauling, Nutrients and Farmer Payment $34.49/ton.	Mowing, Raking, Baling, Hauling, Nutrients and Farmer Payment $40.85/ton.	Harvesting, Hauling to Forest Edge, $20.79/ton.	Sorting, Contaminant Removal, Tipping Fees Avoided, $15/ton
Hauling to Secondary Storage, Secondary Storage, Hauling to Plant $21.53/ton (average)			
Grinding $11/ton			
Total $67.42/ton			

ii. Production Costs for Cellulosic Biofuels

In this section, we discuss the cost to biochemically and thermochemically convert cellulosic feedstocks into fuel ethanol.

Biochemical Ethanol

The National Renewable Energy Laboratory has been evaluating the state of biochemical cellulosic plant technology over the past decade or so, and it has identified principal areas for improvement. In 1999, it released its first report on the likely design concept for an nth generation biochemical cellulosic ethanol plant which projected the state of technology in some future year after the improvements were adopted. In 2002, NREL released a follow-up report which delved deeper into biochemical plant design in areas that it had identified in the 1999 report as deserving for additional research. Again, the 2002 report estimated the ethanol production cost for an nth generation biochemical cellulosic ethanol plant. These reports not only helped to inform policy makers on the likely capability and cost for biochemically converting cellulose to ethanol, but it helped to inform biochemical technology researchers on the most likely technology improvements that could be incorporated into these plant designs.

To comply with the RFS 2 requirements, NREL assessed the likely state of biochemical cellulosic plant technology for EPA over the years that the RFS standard is being phased in. The specific years assessed by NREL were 2010, 2015 and 2022. The year 2010 technology essentially represents the status of today's biochemical cellulosic plants. The year 2015 technology captures the expected near-term improvements including the rapid improvements being made in enzyme technology. The year 2022 technology captures the cost of mature biochemical cellulosic plant technology. Table VII.A.1–6 summarizes NREL's estimated and projected production costs for biochemical cellulosic ethanol plant technology for their projected year 2022 technology in 2007 dollars reflecting a 7 percent before tax rate of return on investment. The biochemical cellulosic

ethanol costs are based on a cellulosic feedstock cost of 67 per dry ton.

TABLE VII.A.1–6—YEAR 2022 BIOCHEMICAL CELLULOSIC ETHANOL PRODUCTION COSTS PROVIDED BY NREL

[2007 dollars and 7% before tax rate of return]

Year technology	2022	
Plant Size MMgal/yr		71
Capital Cost $MM		199
	$MM/yr	c/gal
Capital Cost 7% ROI before taxes	22	31
Fixed Costs	8	12
Feedstock Cost	52	73
Other raw matl. costs	12	16
Enzyme Cost	5	8
Enzyme nutrients	2	2
Electricity	−12	−16
Waste disposal	1	1
Total Costs	90	127

Thermochemical Ethanol

Thermochemical conversion is another reaction pathway which exists for converting cellulose to ethanol. Thermochemical technology is based on the heat and pressure-based gasification or pyrolysis of nearly any biomass feedstock, including those we've highlighted as likely biochemical feedstocks. The syngas could then be converted into mixed alcohols, hydrocarbon fuels, chemicals, and power. In the case that the syngas is converted to ethanol, a possible means for doing so would be to pass the syngas over a catalyst which converts the syngas to mixed alcohols—mainly methanol. The methanol can be reacted further to ethanol.

NREL has authored a thermochemical report: Phillips, S Thermochemical Ethanol via Indirect Gasification and Mixed Alcohol Synthesis of Lignocellulosic Biomass; April, 2007, which already provided a cost estimate. However, this report only hypothesized how a thermochemical ethanol plant could achieve production costs at a very low cost of $1 per gallon. Rather than rely on a very aggressively analyzed cost assessment that may not be achievable within the timeframe of our program, EPA contracted NREL to assess the costs for a thermochemical technology which produces mixed alcohols for years 2010, 2015 and 2022. Table VII.A.1–7 summarizes NREL's estimated and projected production costs for biochemical cellulosic ethanol plant technology for their projected year 2022 technology in 2007 dollars reflecting a 7 percent before tax rate of return on investment. The costs are based on a cellulosic feedstock cost of 67 per dry ton.

TABLE VII.A.1–7—YEAR 2022 THERMOCHEMICAL CELLULOSIC PRODUCTION COSTS OF MIXED ALCOHOLS PROVIDED BY NREL

[2007 dollars and 7% before tax rate of return]

Year technology	2022	
Plant Size MMgal/yr	72.7 Total Alcohol. 61.9 Ethanol.	
Capital Cost $MM	207.	
	$MM/yr	c/gal
Capital Cost 7% ROI before taxes	23	37
Fixed Costs	13	21
Feedstock Cost	52	85
Coproduct Credit	−13	−21
Other Raw Material, Waste Disposal and Catalyst Costs	1	4
Total Costs	76	126

Cost estimates for both biochemical and thermochemical ethanol pathways ended up being ultimately identical. For our cost analysis, we based the cellulosic ethanol costs on the average of the biochemical and thermochemical cellulosic ethanol costs.

BTL Diesel Fuel

If cellulose is converted to syngas, rather than converting the syngas to mixed alcohols, a Fischer Tropsch reactor can be added to convert the syngas to diesel fuel and naphtha. This technology is commonly termed biomass-to-liquids (BTL) because of its similarity to gas-to-liquids and coal-to-

liquids technology. Diesel fuel's higher energy density per gallon than ethanol and even biodiesel provides it an inherent advantage over these other fuels. In addition, BTL diesel fuel can be more easily distributed from production to retail outlets and used by motor vehicles. The diesel fuel produced by the Fischer Tropsch process tends to be comprised of paraffins which provide a much higher cetane number than petroleum diesel fuel, with a downside of poorer cloud point which reduces its widespread use in cold temperatures.

The naphtha produced by the BTL process is also largely comprised of paraffins, however, as a gasoline blendstock it is poor because of its very low octane (potentially as low as 50 octane). This material could be processed by refinery isomerization units raising its octane to perhaps 70 octane, but it cannot be processed by refinery reformers since it does not contain the naphthenic compounds that are necessary for octane improvement by those units. Because of the large amount of octane rich ethanol which is expected to be made available from both corn and cellulose, it could be that BTL naphtha could be blended along with the ethanol into the gasoline pool. Rather than prejudge how this naphtha may be utilized in the future, for our cost analysis we simply assigned it a coproduct credit. So we set the BTL naphtha cost to be 83% as much of the cost of BTL diesel fuel based on its relative energy density.

Although there were several studies available which provided costs estimates for BTL diesel fuel, they did not provide sufficient detail to understand all the cost elements of BTL diesel fuel and naphtha. EPA therefore asked NREL to estimate the production costs for BTL diesel fuel and naphtha. Like the other technologies, we asked for cost estimates for the same years assessed above for cellulosic ethanol which was for 2010, 2015 and 2022, however, NREL did not believe that the costs would change that much over this time span. So NREL only provided the costs for 2022, advising us that the costs would only be slightly less for earlier years, and most of that difference would because of the poorer economies of scale for the initial smaller sized plants.

Table VII.A.1–8 summarizes NREL's estimated and projected production costs for a thermochemical Fischer Tropsch biochemical cellulosic ethanol plant technology for their projected year 2022 technology in 2007 dollars reflecting a 7 percent before tax rate of return on investment. The costs are based on a cellulosic feedstock cost of 67 per dry ton.

TABLE VII.A.1–8—YEAR 2022 PRODUCTION COSTS OF THERMOCHEMICAL (BTL) CELLULOSIC FISCHER TROPSCH DIESEL FUEL PROVIDED BY NREL

[2007 dollars and 7% before tax rate of return]

Plant Size MMgal/yr	33.2 Diesel fuel 49.4 all liquid
Capital Cost $MM	346
Capital Cost 7% ROI before taxes ($MM/yr)	38
Fixed Costs ($MM/yr)	18
Feedstock Cost ($MM/yr)	52
Coproduct Credit ($MM/yr)[a]	−32
Other raw matl. Costs ($MM/yr)	1.5
Waste Disposal and Catalyst Costs ($MM/yr)	1.5
Total Costs ($MM/yr)	79
Total Costs (cents/gallon of diesel fuel)	237

[a] Based on a naphtha coproduct value of 198 cents per gallon.

Other Cellulosic Diesel Fuel Costs

For our volumes analysis, we assumed early on for our final rule analysis that there would likely be several different cellulosic biofuel technologies, other than BTL, producing cellulosic diesel fuel. However, we were either not able to obtain cost information from them, or we were uncertain enough about their future that we felt that we should not base the cost of the program on them. For example, Cello Energy has already built a cellulosic diesel fuel facility in Alabama here in the US with projected costs of about one dollar per gallon of diesel fuel. However, the facility has had difficulty operating as designed. As a result, perhaps very conservatively, we assumed that the other cellulosic diesel fuel costs would be the same as the BTL diesel fuel costs, and used the 237 cents per gallon cost for BTL diesel fuel for the entire cost for cellulosic diesel fuel.

c. Imported Sugarcane Ethanol

We based our imported ethanol fuel costs on cost estimates of sugarcane ethanol in Brazil. Generally, ethanol from sugarcane produced in developing countries with warm climates is much cheaper to produce than ethanol from grain or sugar beets. This is due to favorable growing conditions, relatively low cost feedstock and energy inputs, and other cost reductions gained from years of experience.

As discussed in Chapter 4 of the RIA, our literature search of production costs for sugar cane ethanol in Brazil indicates that production costs tend to range from as low as $0.57 per gallon of ethanol to as high as $1.48 per gallon of ethanol. This large range for estimating production costs is partly due to the significant variations over time in exchange rates, costs of sugarcane and oil products, etc. For example, earlier estimates may underestimate current crude and natural gas costs which influence the cost of feedstock as well as energy costs at the plant. Another possible difference in production cost estimates is whether or not the estimates are referring to hydrous or anhydrous ethanol. Costs for anhydrous ethanol (for blending with gasoline) are typically several cents per gallon higher than hydrous ethanol (for use in dedicated ethanol vehicles in Brazil).[309] It is not entirely clear from the majority of studies whether reported costs are for hydrous or anhydrous ethanol. Yet another difference could be the slate of products the plant is producing, for example, future plants may be dedicated ethanol facilities while others involve the production of both sugar and ethanol in the same facility. Due to economies of scale, production costs are also typically smaller per gallon for larger facilities.

The study by OECD (2008) entitled "Biofuels: Linking Support to

[309] International Energy Agency (IEA), "Biofuels for Transport: An International Perspective," 2004.

Performance", appears to provide the most recent and detailed set of assumptions and production costs. As such, our estimate of sugarcane production costs primarily relies on the assumptions made for the study, which are shown in Table VII.A.1–9. The estimate assumes an ethanol-dedicated mill and is based off an internal rate of return of 12%, a debt/equity ratio of 50% with an 8% interest rate and a selling of surplus power at $57 per MWh.

TABLE VII.A.1–9—COST OF PRODUCTION IN A STANDARD ETHANOL PROJECT IN BRAZIL

Sugarcane Productivity	71.5 t/ha.
Sugarcane Consumption	2 million tons/year.
Harvesting days	167.
Ethanol productivity	85 liters/ton (22.5 gal/ton).
Ethanol Production	170 million liters/year (45 MGY).
Surplus power produced	40 kWh/ton sugarcane.
Investment cost in mill	USD 97 million.
Investment cost for sugarcane production	USD 36 million.
O & M (Operating & Maintenance) costs	$0.26/gal.
Variable sugarcane production costs	$0.64/gal.
Capital costs	$0.49/gal.
Total production costs	$1.40/gal.

The estimate above is based on the costs of producing ethanol in Brazil on average, today. However, we are interested in how the costs of producing ethanol will change by the year 2022. Although various cost estimates exist, analysis of the cost trends over time shows that the cost of producing ethanol in Brazil has been steadily declining due to efficiency improvements in cane production and ethanol conversion processes. Between 1980 and 1998 (total span of 19 years) ethanol cost declined by approximately 30.8%.[310] This change in the cost of production over time in Brazil is known as the ethanol cost "Learning Curve".

The change in ethanol costs will depend on the likely productivity gains and technological innovations that can be made in the future. As the majority of learning may have already occurred, it is likely that the decline in sugarcane ethanol costs will be less drastic in the future as the production process and cane practices have matured. Industrial efficiency gains are already at about 85% and are expected to increase to 90% in 2015.[311] Most of the productivity growth is expected to come from sugarcane production, where yields are expected to grow from the current 70 tons/ha, to 96 tons/ha in 2025.[312] Sugarcane quality is also expected to improve, with sucrose content growing from 14.5% to 17.3% in 2025.[313] All productivity gains together could allow the increase in the production of ethanol from 6,000 liters/ha (at 85 liters/ton sugarcane in 2005) to 10,400 liters/ha (at 109 liters/ton sugarcane) by 2025.[314] Although not reflected here, there could also be cost and efficiency improvements related to feedstock collection, storage, and distribution.

Assuming that ethanol productivity increases to 100 liters/ton by 2015 and 109 liters/ton by 2025, variable sugarcane ethanol production costs are be expected to decrease to approximately $0.51/gal from $0.64/gal since less feedstock is needed to produce the same volume of ethanol using the estimates from Table VII.A.1–7, above. We assumed a linear decrease between data points for 2005, 2015, and 2025. Adding operating ($0.26/gal) and capital costs ($0.49/gal) from Table VII.A.1–7, to a sugarcane cost of $0.51/gal, total production costs are $1.26/gal in 2022.

Brazil sugarcane producers are also expected to move from burned cane manual harvesting to mechanical harvesting. As a result, large amounts of straw are expected to be available. Costs of mechanical harvesting are lower compared to manually harvesting, therefore, we would expect costs for sugarcane to decline as greater sugarcane producers move to mechanical harvesting. However, diesel use increases with mechanical harvesting and with diesel fuel prices expected to increase in the future, costs may be higher than expected. Therefore, we have not assumed any changes to harvesting costs due to the switchover from manual harvesting to mechanical harvesting.

As more straw is expected to be collected at future sugarcane ethanol facilities, there is greater potential for production of excess electricity. The production costs estimates in the OECD study assumes an excess of 40 kWh per ton sugarcane, however, future sugarcane plants are expected to produce 135 kWh per ton sugarcane assuming the use of higher efficiency condensing-extraction steam turbine (CEST) systems and use of 40% of available straw.[315] Assuming excess electricity is sold for $57 per MWh, the production of 95 kWh per ton would be equivalent to a credit of $0.22 per gallon ethanol produced. We have included this potential additional credit from greater use of bagasse and straw in our estimates at this time, calculated as a decrease in operating costs from $0.26 per gallon to $0.04 per gallon.

It is also important to note that ethanol production costs can increase if the costs of compliance with various sustainability criteria are taken into account. For instance, using organic or green cane production, adopting higher wages, etc. could increase production costs for sugarcane ethanol.[316] Such sustainability criteria could also be applicable to other feedstocks, for example, those used in corn- or soy-based biofuel production. If these measures are adopted in the future, production costs will be higher than we have projected.

In addition to production costs, there are also logistical and port costs. We used the report from AgraFNP to estimate such costs since it was the only resource that included both logistical

[310] Goldemberg, J. as sited in Rothkopf, Garten, "A Blueprint for Green Energy in the Americas," 2006.

[311] Unicamp "A Expansão do Proalcool como Programa de Desenvolvimento Nacional". Powerpoint presentation at *Ethanol Seminar* in BNDES, 2006. As sited in OECD, "Biofuels: Linking Support to Performance," ITF Round Tables No. 138, March 2008.

[312] *Ibid.*

[313] *Ibid.*

[314] *Ibid.*

[315] Macedo. I.C., "Green house gases emissions in the production and use of ethanol from sugarcane in Brazil: The 2005/2006 Averages and a Prediction for 2020," *Biomass and Bioenergy,* 2008.

[316] Smeets E, Junginger M, Faaij A, Walter A, Dolzan P, Turkenburg W, "The sustainability of Brazilian Ethanol—An Assessment of the possibilities of certified production," *Biomass and Bioenergy,* 2008.

and port costs. The total average logistical and port cost for sugarcane ethanol is $0.20/gal and $0.09/gal, respectively, as shown in Table VII.A.1–10.

TABLE VII.A.1–10—IMPORTED ETHANOL COST AT PORT IN BRAZIL

[2006 $]

Region	Logistical costs US ($/gal)	Port cost US ($/gal)
NE Sao Paulo	0.150	0.097
W Sao Paulo	0.210	0.097
SE Sao Paulo	0.103	0.097
S Sao Paulo	0.175	0.097
N Parana	0.238	0.097
S Goias	0.337	0.097
E Mato Grosso do sul	0.331	0.097
Triangulo mineiro	0.207	0.097
NE Cost	0.027	0.060
Sao Francisco Valley	0.193	0.060
Average	0.197	0.089

Total fuel costs must also include the cost to ship ethanol from Brazil to the U.S. The average cost from 2006–2008 was estimated to be approximately $0.17 per gallon of ethanol.[317] Costs were estimated as the difference between the unit value cost of insurance and freight (CIF) and the unit value customs price. The average cost to ship ethanol from Caribbean countries (*e.g.* El Salvador, Jamaica, etc.) to the U.S. from 2006–2008 was approximately $0.13 per gallon of ethanol. Although this may seem to be an advantage for Caribbean countries, it should be noted that there would be some additional cost for shipping ethanol from Brazil to the Caribbean country. Therefore, we assume all costs for shipping ethanol to be $0.17 per gallon regardless of the country importing ethanol to the U.S.

Total imported ethanol fuel costs (at U.S. ports) prior to tariff and tax for 2022 is shown in Table VII.A.1–11, at $1.50/gallon. Direct Brazilian imports are also subject to an additional $0.54 per gallon tariff, whereas those imports arriving in the U.S. from Caribbean Basin Initiative (CBI) countries are exempt from the tariff. In addition, all imports are given an ad valorem tax of 2.5% for undenatured ethanol and a 1.9% tax for denatured ethanol. We assumed an ad valorem tax of 2.5% for all ethanol. Thus, including tariffs and ad valorem taxes, the average cost of imported ethanol is shown in Table VII.A.1–12 in the "Brazil Direct w/Tax & Tariff" and "CBI w/Tax" columns for 2022.

TABLE VII.A.1–11—AVERAGE IMPORTED ETHANOL COSTS PRIOR TO TARIFF AND TAXES IN 2022

Sugarcane production cost ($/gal)	Operating cost ($/gal)	Capital cost ($/gal)	Logistical cost ($/gal)	Port cost ($/gal)	Transport cost from port to US ($/gal)	Total cost ($/gal)
0.51	0.04	0.49	0.20	0.09	0.17	1.50

TABLE VII.A.1–12—AVERAGE IMPORTED ETHANOL COSTS IN 2022

Brazil direct ($/gal)	Brazil direct w/ tax & tariff ($/gal)	CBI ($/gal)	CBI w/tax ($/gal)
1.50	2.08	1.50	1.54

2. Biodiesel and Renewable Diesel Production Costs

Biodiesel and renewable diesel production costs are primarily a function of the feedstock cost, and to a much lesser extent, the capital and other operating costs of the facility.

a. Biodiesel

Biodiesel production costs for this rule were estimated using two versions of a biodiesel production facility model obtained from USDA, one using degummed soy oil as a feedstock and the other using yellow grease. The biodiesel from yellow grease model includes acid pre-treatment steps required to utilize feedstocks with high free fatty acid content.

The production model simulates a 10 million-gallon-per-year plant operating a continuous flow transesterification process. USDA used the SuperPro Designer chemical process simulation software to estimate heat and material flowrates and equipment sizing. Outputs from this software were then

[317] Official Statistics of the U.S. Department of Commerce, USITC.

combined in a spreadsheet with equipment, energy, labor, and chemical costs to generate a final estimate of production cost. The model is described in a 2006 publication in Bioresource Technology, peer-reviewed scientific journal. [318] For the purpose of estimating biodiesel production cost for this rulemaking, a model with updated facility, labor, and chemical costs was used. Installed capital cost was $11.9 million, and energy prices were taken from AEO 2009: natural gas at $7.75/MMBtu and electricity at $0.066/kWh. Capital charge plus maintenance was assumed to be 14% of total capital per year. Table VII.A.2–1 shows the production cost allocation for the soy oil-to-biodiesel facility as modeled in the 2022 policy case.

TABLE VII.A.2–1—PRODUCTION COST ALLOCATION FOR SOY BIODIESEL FOR POLICY CASE IN 2022

Cost category	Contribution to cost (percent)
Soy Oil	85
Other Materials [a]	6
Capital & Facility	6
Labor	2
Utilities	2

[a] Includes acids, bases, methanol, catalyst.

Soy oil costs were generated by the FASOM agricultural model (described in more detail in Section VIII.A). Historically, the majority of biodiesel production in the U.S. has used soy oil, a relatively high-value feedstock, but a growing fraction of biodiesel is being made from yellow grease (rendered or reclaimed oil that is not suitable for use in food products). This material has historically sold for about 70% of the value of virgin soy oil. However, conversion of yellow grease into biodiesel requires an additional acid pre-treatment step, and therefore the processing costs are higher than for virgin soy oil (40–50 cents/gal if feedstock costs are equal), reducing the attractiveness of the cheaper feedstock to some extent. Another feedstock we expect to be used in significant quantities in the future is distressed corn oil extracted from process streams that make up distillers' grains. This material will also require processing in acid pre-treatment facilities, and is projected by the FASOM model to have about one half the value of soy oil.

Finally, we project a small amount of algae-derived oil (or similarly advanced feedstock) will be used by 2022. As algal biofuel technology is still in a relatively early stage of development, there are many possible configurations for the production of this material and thus there is considerable uncertainty regarding process performance and cost. Based on work done by NREL at the time of this rulemaking, we assumed a production cost of $0.68/lb for this feedstock.[319] More details on how this estimate was made can be found in Chapter 4.1 of the RIA.

A co-product of transesterification is crude glycerin. With the upswing in worldwide biodiesel production in recent years, its price has been depressed in most markets. Closure of remaining petrochemical glycerin plants, along with development of processes to make new use of it as a feedstock for other commodity chemicals has provided some support for a price recovery. Some companies are experimenting with using glycerin as a fuel for process or facility heat. We expect new uses for this coproduct to continue growing to reach an equilibrium with supply at or near its heating value, which we estimate to be $0.15/lb. As a result, the sale of this material as a co-product reduces biodiesel production cost by about $0.13/gal in our control case.

b. Renewable Diesel

Renewable diesel production can occur in a few different configurations: within the boundaries of an existing refinery where it may or may not be coprocessed with petroleum, or at a stand-alone plant that may or may not be co-located with other facilities that provide utilities or hydrogen. Given changes in the tax incentives as well as current project announcements, we have chosen to project that all renewable diesel will be produced in stand-alone facilities, not coprocessing with petroleum. The 75 MMgal/yr Syntroleum facility scheduled to come online in Geismar, Louisiana, in 2010 is an example of such a plant.

Our production cost estimates used hydrogen requirements made available publicly by UOP, Inc. and overall project cost of $150MM taken from Syntroleum, Corp. materials.[320] [321] The feedstock was assumed to be yellow grease or similar rendered material. Hydrogen and co-product prices were taken from refinery modeling done for this rule, while an aggregate figure of $0.069/gal, derived from the UOP publication, was used to cover other variable operating costs besides hydrogen (includes labor, catalyst, and utilities). Cost contributions of various process aspects are shown in Table VII.A.2–2. More details are available in Chapter 4.1 of the RIA.

TABLE VII.A.2–2—PRODUCTION COST ALLOCATION FOR RENEWABLE DIESEL FOR POLICY CASE IN 2022

Cost category	Contribution to cost (percent)
Feedstock	78
Capital & Facility	11
Hydrogen	7
Other variable costs	3

Table VII.A.2–3 summarizes the production costs for biodiesel and renewable diesel as estimated for this rule, as well as their projected volume contribution in 2022. Biodiesel made from yellow grease is projected to be about 10% cheaper to produce despite its higher production cost due to the large influence of the feedstock cost, which is about 30% lower. Biodiesel from extracted corn oil is expected to be significantly cheaper to produce than this, again due to the projected feedstock cost being about half that of soy oil. Finally, renewable diesel from stand-alone production is estimated in this analysis to have total production cost similar to biodiesel from yellow grease. However, given the business partnership between the fuel production and animal processing companies who have announced or are constructing the U.S. plants to date, we expect the feedstock being used there may be made available at a lower cost than we are projecting here for yellow grease.

[318] Haas, M.J, A process model to estimate biodiesel production costs, Bioresource Technology 97 (2006) 671–678.

[319] *See* Technical Memo in the docket entitled "Techno-economic analysis of microalgae-derived biofuel production" by Ryan Davis of the National Renewable Energy Laboratory.

[320] A New Development in Renewable Fuels: Green Diesel, AM–07–10 Annual Meeting NPRA, March 18–20, 2007.

[321] Taken from Syntroleum Investor Presentation, November 5, 2009. *See http://www.syntroleum.com/Presentations/SyntroleumInvestorPresentation.November%205.2009.FINAL.pdf.*

TABLE VII.A.2–3—SUMMARY OF COST FOR BIODIESEL AND RENEWABLE DIESEL FOR POLICY CASE IN 2022

[2007$]

Fuel/feedstock	Feedstock price ($/lb)	Fuel production cost ($/gal)
Biodiesel/soy oil	0.33 [a]	2.73
Biodiesel/corn oil extraction at ethanol plants	0.17 [a]	1.90
Biodiesel/yellow grease or other rendered fats	0.23 [b]	2.43
Biodiesel/algae or other advanced virgin oil feedstock	0.58 [c]	4.52 [d]
Renewable diesel/yellow grease or other rendered fats	0.23 [b]	2.42

[a] Taken from outputs of FASOM model.
[b] Derived from outputs of FASOM model, assuming 70% value of soy oil.
[c] Derived from figures in a Technical Memo by Ryan Davis of NREL entitled "Techno-economic analysis of microalgae-derived biofuel production" (available in docket).
[d] This production cost assumes this advanced feedstock has very low free fatty acid content.

B. Biofuel Distribution Costs

Our analysis of the costs associated with distributing the volume of biofuels that we project will be used under RFS2 focuses on: (1) The capital cost of making the necessary upgrades to the fuel distribution infrastructure system directly related to handling these fuels, and (2) the ongoing additional freight costs associated with shipping renewable fuels to the point where they are blended with petroleum-based fuels.[322] The following sections outline our estimates of the distribution costs for the additional volumes of ethanol, cellulosic distillate fuel, renewable diesel fuel, and biodiesel that we project would be used in response to the RFS2 standards under the three control scenarios that we analyzed relative to the two reference cases.[323]

A discussion of the capability of the transportation system to accommodate the volumes of renewable fuels projected to be used under RFS2 is contained in Section IV.C. of today's preamble and 1.6 of the RIA. There will be ancillary costs associated with upgrading the basic rail, marine, and road transportation nets to handle the increase in freight volume due to the RFS2. We have not sought to quantify these ancillary costs because (1) the growth in freight traffic that is attributable to RFS2 represents a small fraction of the total anticipated increase in freight tonnage (approximately 3% of rail traffic by 2022, see Section IV.C.1), and (2) we do not believe there is an adequate way to estimate such non-direct costs.

1. Ethanol Distribution Costs

The capital costs to upgrade the distribution system to handle the increased volumes of ethanol vary substantially under the three control scenarios that we analyzed. Table VII.B.1–1 contains our estimates of the fuel distribution infrastructure capital costs to support the use of the additional ethanol that we project will be used under the three use scenarios by 2022 relative to the RFS1 reference case forecast of 7.05 BGY.[324] The total estimated capital costs under our primary case are estimated at $7.90 billion which when amortized equates to approximately 6 cents per gallon of the additional ethanol volume that would be used in 2022 in response to the RFS2 standards relative to the RFS1 reference case.[325] Capital costs under the low-ethanol and high-ethanol scenarios are estimated at $5.47 billion and $11.92 billion respectively. This equates to 6 and 5 cents per gallon respectively relative to the RFS1 reference case.

TABLE VII.B.1–1—ESTIMATED ETHANOL DISTRIBUTION INFRASTRUCTURE CAPITAL COSTS UNDER THE RFS1 REFERENCE CASE

	Million $		
	Low-ethanol scenario	Primary scenario	High-ethanol scenario
Fixed Facilities:			
Marine Import Facilities	49	53	63
Marine Facilities for Shipment Inside U.S.	98	130	186
Unit Train Receipt Facilities	444	586	838
Manifest Rail Receipt Facilities	15	20	28
Petroleum Terminals:			
Terminal Storage Tanks	859	1,243	2,073
Blending & Misc. Equipment	1,006	1,064	1,144
E85 Retail	1,957	3,293	4,973
Mobile Facilities:			
Rail Cars	884	1,279	2,218
Barges	53	77	133
Tank Trucks	107	154	268

[322] The anticipated ways that the renewable fuels projected to be used in response to the EISA will be distributed is discussed in Section IV.C. of today's preamble.

[323] Please refer to Section 4.2 of the RIA for additional discussion of how these estimates were derived.

[324] See Section IV.C. of today's preamble for discussion of the upgrades we project will be needed to the distribution system to handle the increase in ethanol volumes under EISA. The derivation of these estimates is discussed in Section 4.2 of the RIA.

[325] These capital costs will be incurred incrementally through 2022 as ethanol volumes increase. Capital costs for tank trucks were amortized over 10 years with a 7% cost of capital. Other capital costs were amortized over 15 years with a 7% return on capital.

TABLE VII.B.1–1—ESTIMATED ETHANOL DISTRIBUTION INFRASTRUCTURE CAPITAL COSTS UNDER THE RFS1 REFERENCE CASE—Continued

	Million $		
	Low-ethanol scenario	Primary scenario	High-ethanol scenario
Total Capital Costs (Million $)	5,471	7,898	11,922
Total Capital Costs (cents per gallon ethanol)	6	6	5

Table VII.B.1–2 contains our estimates of the fuel distribution infrastructure costs to support the use of the additional ethanol that we project will be used under the three use scenarios by 2022 relative to the AEO reference case forecast of 13.18 BGY. The total estimated capital costs under our primary case are estimated at $5.50 billion which when amortized equates to approximately 7 cents per gallon of the additional ethanol volume that would be used in 2022 in response to the RFS2 standards relative to the AEO reference case. Capital costs under the low-ethanol and high-ethanol scenarios are estimated at $3.02 billion and $9.93 billion respectively. This equates to 8 and 6 cents per gallon respectively relative to the AEO reference case.

TABLE VII.B.1–2—ESTIMATED ETHANOL DISTRIBUTION INFRASTRUCTURE CAPITAL COSTS UNDER THE AEO REFERENCE CASE

	Million $		
	Low-ethanol scenario	Primary scenario	High-ethanol scenario
Fixed Facilities:			
Marine Import Facilities	49	53	63
Marine Facilities for Shipment Inside U.S.	76	100	144
Unit Train Receipt Facilities	238	434	748
Manifest Rail Receipt Facilities	7	12	21
Petroleum Terminals:			
Terminal Storage Tanks	355	739	1,568
Blending & Misc. Equipment	345	411	503
E85 Retail	1,526	2,863	4,893
Mobile Facilities:			
Rail Cars	309	522	1,133
Barges	16	38	63
Tank Trucks	68	103	194
Total Capital Costs (Million $)	3,025	5,505	9,935
Total Capital Costs (cents per gallon ethanol)	8	7	6

We estimate that ethanol freight costs under the primary and high-ethanol scenarios would be 13 cents per gallon on a national average basis. Ethanol freight costs under the high-ethanol scenario are estimated at 12 cents per gallon. These estimates are based on an analysis conducted for EPA by Oak Ridge National Laboratory (ORNL) which were modified to reflect projected higher transportation fuel costs in the future, the likely installation of fewer unit train receipt facilities than that projected by ORNL based on industry comments, and to conform to the ethanol volumes under the three control scenarios analyzed in today's rule.[326] The ORNL analysis contains detailed projections of which transportation modes and combination of modes (e.g. unit train to barge) are best suited for delivery of ethanol to specific markets considering ethanol source and end use locations, the current configuration and projected evolution of the distribution system, and cost considerations for the different transportation modes.

Summing the freight and capital costs estimates results in an estimate of 19 cents per gallon for ethanol distribution costs for our primary and low-ethanol scenarios under the RFS1 reference case. Total ethanol distribution costs under the RFS1 reference case for the high-ethanol scenario are estimated at 17 cents per gallon. Under the AEO reference case, total ethanol distribution costs are estimated at 21, 20, and 18 cents per gallon respectively for the low-ethanol, primary, and high-ethanol scenarios.

As discussed in Section IV.C. of today's preamble, ASTM International is considering a change to specification on the minimum ethanol content in E85 to facilitate the manufacture of E85 at terminals which meets minimum volatility specifications using commonly-available finished gasoline. If the current difficulties in blending E85 to meet minimum volatility specifications can not be resolved by lowering the minimum ethanol concentration of E85, high vapor pressure blendstocks will need to be supplied to approximately two thirds of petroleum terminals for blending with E85.[327] This would necessitate the

[326] "Analysis of Fuel Ethanol Transportation Activity and Potential Distribution Constraints", prepared for EPA by Oak Ridge National Laboratory, March 2009. The ORNL analysis indicates that ethanol freight costs decrease somewhat with increasing ethanol volume. *See* Section 4.2 of the RIA for additional discussion of the estimation of ethanol freight costs.

[327] If this is the case, EPA would need to reconsider its policies regarding what blendstocks

installation of new blending/storage equipment at petroleum terminals and additional butane tank cars and tank trucks. The capital costs for such facilities would be $2.2 billion, $1.4 billion, and $0.6 billion under the high-ethanol, primary, and low-ethanol scenarios respectively under both reference cases. By amortizing these capital costs and adding in butane freight costs, we estimate that the need to supply special blendstocks at terminals for E85 blending would add approximately 1 cent per gallon to ethanol distribution costs for all three analysis scenarios relative to the RFS1 reference case. Relative to the AEO reference case, the additional cost would be approximately 2 cents per gallon under the primary and low-ethanol scenarios, and approximately 1 cent per gallon under the high-ethanol scenario.

In the NPRM, we estimated that half of the new ethanol rail receipt capability needed to support the use of the projected ethanol volumes under the EISA would be installed at petroleum terminals, and half would be installed at rail terminals. Based on input from industry and a study conducted for us by ORNL, we now believe that all unit train receipt facilities will be installed at new dedicated locations.[328] This change results in the need for additional tank truck receipt equipment at terminals and additional tank trucks to carry ethanol from rail to petroleum terminals compared to the NPRM. However, we also received additional input from industry on the cost of unit train facilities which indicates that such facilities are not as costly as we projected in the NPRM. We also increased the average E85 facility cost relative to the NPRM to reflect the likely need for additional E85 dispensers and a larger underground storage tank to maintain sufficient throughput per facility.[329]

2. Cellulosic Distillate and Renewable Diesel Distribution Costs

We chose to evaluate the distribution costs for cellulosic distillate and renewable diesel together because the same considerations apply to their handling in the fuel distribution system and because the projected volume of renewable diesel fuel is relatively small.

Table VII.B.2–1 contains our estimates of the fuel distribution infrastructure capital costs to support the use of the cellulosic distillate and renewable diesel fuel that we project will be used under the three use scenarios by 2022 under the RFS1 reference case.[330] The total estimated capital costs by 2022 under our primary and low-ethanol scenarios are estimated at $1.38 billion and $2.00 billion respectively under the RFS1 reference case.

TABLE VII.B.2–1—ESTIMATED CELLULOSIC DISTILLATE FUEL DISTRIBUTION INFRASTRUCTURE CAPITAL COSTS UNDER THE RFS1 REFERENCE CASE

	Million $		
	Low-ethanol scenario	Primary scenario	High-ethanol case
Fixed Facilities:			
Marine Facilities for Shipment Inside US	87	56	-
Unit Train Receipt Facilities	394	253	.....
Manifest Rail Receipt Facilities	13	8	.....
Petroleum Terminals:			
Terminal Storage Tanks	218	154	.....
Blending & Misc. Equipment	361	252	.....
Mobile Facilities:			
Rail Cars	784	552	.....
Barges	47	33	.....
Tank Trucks	95	.....	.....
Total Capital Costs (Million $)	1,999	1,375	NA
Total Capital Costs (cents per gallon of cellulosic distillate fuel)	2	2	NA

Table VII.B.2–2 contains our estimates of the infrastructure changes and associated capital costs to support the use of the cellulosic distillate and renewable diesel fuel that we project will be used under the three use scenarios by 2022 under the AEO reference case. Total capital costs are estimated at $1.02 and $1.46 billion for the primary and low-ethanol scenarios respectively under the AEO reference case. The difference in estimated capital costs for the two control scenarios under the two reference scenarios is obscured by rounding when translating these costs to a cents-per-gallon basis. When amortized, these capital costs equate to approximately 2 cents per gallon for both control scenarios under both reference cases.[331]

can be used at petroleum terminals in the manufacture of E85.

[328] "Analysis of Fuel Ethanol Transportation Activity and Potential Distribution Constraints", prepared for EPA by Oak Ridge National Laboratory (ORNL), March 2009.

[329] This is a sensitivity case that was evaluated in the NPRM.

[330] *See* Section IV.C. of today's preamble for discussion of the upgrades we project will be needed to the distribution system to handle the increase in ethanol volumes under EISA. The derivation of these estimates is discussed in Section 1.6 of the RIA.

[331] These capital costs will be incurred incrementally through 2022 as ethanol volumes increase. Capital costs for tank trucks were amortized over 10 years with a 7% cost of capital. Other capital costs were amortized over 15 years with a 7% return on capital.

TABLE VII.B.2–2—ESTIMATED CELLULOSIC DISTILLATE FUEL DISTRIBUTION INFRASTRUCTURE CAPITAL COSTS UNDER THE AEO REFERENCE CASE

	Million $		
	Low-ethanol scenario	Primary scenario	High-ethanol case
Fixed Facilities:			
Marine Facilities for Shipment Inside US	67	43	.....
Unit Train Receipt Facilities	511	315	.....
Manifest Rail Receipt Facilities	15	9	.....
Petroleum Terminals:			
Terminal Storage Tanks	218	154	.....
Blending & Misc. Equipment	304	223	.....
Mobile Facilities:			
Rail Cars	784	552	.....
Barges	47	33	.....
Tank Trucks	90	63	.....
Total Capital Costs (Million $)	2,036	1,392	NA
Total Capital Costs (cents per gallon of cellulosic distillate fuel)	2	2	NA

We estimate that cellulosic distillate freight costs would be 13 cents per gallon on a national average basis under both the primary and low-ethanol scenarios. This estimate is based on the application to cellulosic distillate freight costs of an analysis conducted for EPA by Oak Ridge National Laboratory (ORNL) of ethanol freight costs.[332] The underlying premise is that both ethanol and cellulosic distillate fuel would be handled by the same types of distribution facilities on the journey to petroleum terminals.[333] Summing the freight and capital costs results in an estimated 15 cents per gallon in total distribution costs for both the primary and low-ethanol scenarios under both reference cases.

The ethanol and cellulosic distillate distribution cost estimates are based on the projections of the location of biofuel production facilities and end use areas contained in the NPRM. The extent to which new biofuel production facilities are more dispersed than projected in the NPRM, distribution costs for ethanol from new production facilities and for all cellulosic distillate facilities may tend be lower than those projected by this analysis as the fuel has more opportunity to be used locally. This would potentially be a greater benefit in lowering cellulosic distillate distribution costs than overall ethanol distribution costs given the large number of ethanol production facilities currently located in the Midwest. Cellulosic distillate costs should also tend to be lower than those for ethanol because cellulosic distillate fuel blends are compatible with existing petroleum distribution equipment, whereas there are special considerations associated with the distribution of ethanol. The most notable of these considerations is the need for special fuel retail equipment for E85 (as evidenced in Table VII.B.1–1). Thus, the cellulosic distillate distribution costs estimated here are likely to be conservative.

3. Biodiesel Distribution Costs

Table VII.B.3–1 contains our estimates of the infrastructure changes and associated capital costs to support the use of the additional biodiesel that we project will be used under RFS2 by 2022 relative to the RFS reference case of 300 MGY by 2022.[334] The total capital costs are estimated at $1.2 billion which equates to approximately 10 cents per gallon of additional biodiesel volume.[335]

TABLE VII.B.3–1—ESTIMATED BIODIESEL DISTRIBUTION INFRASTRUCTURE CAPITAL COSTS UNDER THE RFS1 REFERENCE CASE

	Million $
Fixed Facilities:	
Petroleum Terminals:	
Storage Tanks	411
Blending & Misc. Equipment	612
Mobile Facilities:	
Rail Cars	111
Barges	53
Tank Trucks	25
Total Capital Costs (Million $)	1,212
Total Capital Costs (cents per gallon of biodiesel)	10

Table VII.B.3–2 contains our estimates of the infrastructure changes and associated capital costs to support the use of the additional biodiesel that we project will be used under RFS2 by 2022 relative to the AEO reference case of 380 MGY. The total capital costs are estimated at $1.1 billion which equates to approximately 10 cents per gallon of additional biodiesel volume.

TABLE VII.B.3–2—ESTIMATED BIODIESEL DISTRIBUTION INFRASTRUCTURE CAPITAL COSTS UNDER THE AEO REFERENCE CASE

	Million $
Fixed Facilities:	
Petroleum Terminals:	
Storage Tanks	387
Blending & Misc. Equipment	576
Mobile Facilities:	
Rail Cars	105
Barges	50

[332] "Analysis of Fuel Ethanol Transportation Activity and Potential Distribution Constraints", prepared for EPA by Oak Ridge National Laboratory, March 2009. See Section 4.2 of the RIA for additional discussion of the estimation of cellulosic distillate freight costs.

[333] The same unit train and manifest rail receipt facilities would be used to handle shipments of both fuels.

[334] We project that by 2022 300 MGY of biodiesel would be used under the RFS1 reference case, 380 MGY of biodiesel would be used under the RFS reference case and that a total of 1.67 BGY of biodiesel would be used under the EISA. Biodiesel use is projected to be the same under all three of analysis scenarios.

[335] These capital costs will be incurred incrementally through 2022 as biodiesel volumes increase. Capital costs for tank trucks were amortized over 10 years with a 7% cost of capital. Other capital costs were amortized over 15 years with a 7% return on capital.

TABLE VII.B.3–2—ESTIMATED BIODIESEL DISTRIBUTION INFRASTRUCTURE CAPITAL COSTS UNDER THE AEO REFERENCE CASE—Continued

	Million $
Tank Trucks	24
Total Capital Costs (Million $)	1,141
Total Capital Costs (cents per gallon of biodiesel)	10

We estimate that biodiesel freight costs would be 10 cents per gallon on a national average basis. State biodiesel use requirements and biodiesel production locations were taken into account in formulating this estimate.[336] The biodiesel blend ratio was estimated to vary between 2 and 5%. Adding the estimated freight costs to the amortized capital costs results in an estimate of total biodiesel distribution costs of 20 cents per gallon under both the RFS1 and AEO reference cases.

C. Reduced U.S. Refining Demand

As renewable and alternative fuel use increases, the volume of petroleum-based products, such has gasoline and diesel fuel, would decrease. This reduction in finished refinery petroleum products results in reduced refinery industry costs. The reduced costs would essentially be the volume of fuel displaced multiplied by the cost for producing the fuel. There is also a reduction in capital costs as investment in new refinery capacity is displaced by investments in renewable and alternative fuels capacity.

Although we conducted refinery modeling for estimating the cost of blending ethanol (see Section VII.B), we did not rely on the refinery model results for estimating the volume of displaced petroleum as other economic factors also come into play. Instead we conducted an energy balance around the increased use of renewable fuels, estimating the energy-equivalent volume of gasoline or diesel fuel displaced. This allowed us to more easily apply our best estimates for how much of the petroleum would displace imports of finished products versus crude oil for our energy security analysis which is discussed in Section VIII.B of this preamble.

As part of this petroleum displacement analysis, we accounted for the change in petroleum demanded by upstream processes related to additional production of the renewable fuels as well as reduced production of petroleum fuels. For example, growing corn used for ethanol production requires the use of diesel fuel in tractors, which reduces the volume of petroleum displaced by the ethanol. Similarly, the refining of crude oil uses by-product hydrocarbons for heating within the refinery, therefore the overall effect of reduced gasoline and diesel fuel consumption is actually greater because of the additional upstream effect. We used the lifecycle petroleum demand estimates provided for in the GREET model to account for the upstream consumption of petroleum for each of the renewable and alternative fuels, as well as for gasoline and diesel fuel. Although there may be some renewable fuel used for upstream energy, we assumed that this entire volume is petroleum because the volume of renewable and alternative fuels is fixed by the RFS2 standard.

We assumed that a portion of the gasoline displaced by ethanol would have been produced from domestic refineries causing reduced demand from U.S. refineries, while the rest of the additional ethanol displaces imported gasoline or gasoline blendstocks which does not affect domestic refining sector costs. To estimate the portion of new ethanol which displaces U.S. refinery production we relied on some Markal refinery modeling conducted for us by DOE. The Markal refinery model models all the refinery sectors of the world and thus can do a fair job estimating how renewable fuels would impact imports of finished gasoline and gasoline blendstocks. The Markal refinery model estimated that ⅔rds of a reduction in petroleum gasoline demand would be met by a reduction in imported gasoline or gasoline blendstocks, while the other ⅓rd would be met by reduced refining production by the U.S. refining sector. In the case of biodiesel and renewable diesel, all of it is presumed to offset domestic diesel fuel production. For ethanol, biodiesel and renewable diesel, the amount of petroleum fuel displaced is estimated based on the relative energy contents of the renewable fuels to the fuels which they are displacing. The savings due to lower imported gasoline and diesel fuel is accounted for in the energy security analysis contained in Section VIII.B.

For estimating the U.S. refinery industry cost reductions, we multiplied the estimated volume of domestic gasoline and diesel fuel displaced by the projected wholesale price for each of these fuels in 2022, which are $3.42 per gallon for gasoline, and $3.83 per gallon for diesel fuel. For the volume of petroleum displaced upstream, we valued it using the wholesale diesel fuel price. Table VII.C–1 shows the net volumetric impact on the petroleum portion of gasoline and diesel fuel demand, as well as the reduced refining industry costs for 2022.

TABLE VII.C–1—CHANGES IN U.S. REFINERY INDUSTRY VOLUMES AND COSTS FOR INCREASED RENEWABLE FUEL VOLUMES IN 2022 RELATIVE TO THE AEO 2007 REFERENCE CASE

[2007 dollars]

	Low ethanol case		Primary case (mid-ethanol case)		High ethanol case	
	Bil gals	Bil $	Bil gals	Bil $	Bil gals	Bil $
Upstream:						
Petroleum	0.34	1.3	0.34	1.3	0.33	1.3
End Use:						
Gasoline	−0.9	−3.1	−2.0	−6.8	−4.4	−15.0
Diesel Fuel	−10.1	−38.7	−7.5	−28.7	−1.3	−5.0
Total	−10.7	−40.5	−9.2	−34.2	−5.4	−18.7

[336] *See* Section 4.2 of the RIA for a discussion of our derivation of biodiesel distribution costs.

For the primary control case relative to the AEO 2007 reference case, this analysis estimates that the increased volumes of renewable fuel would reduce the gasoline and diesel fuel production volume of US refineries by 9.2 billion gallons in 2022, which would reduce their raw material purchases and production costs by $34 billion dollars. Accounting for all the petroleum displaced (domestic and foreign), the increased volumes of renewable fuel caused by the RFS 2 fuels program are estimated to reduce gasoline and diesel fuel demand by 13.2 billion gallons.

D. Total Estimated Cost Impacts

The previous sections of this chapter presented estimates of the cost of producing and distributing corn-based and cellulosic-based ethanol, cellulosic diesel fuel, imported ethanol, biodiesel, and renewable diesel. In this section, we briefly summarize the methodology used and the results of our analysis to estimate the cost and other implications for increased use of renewable fuels to displace gasoline and diesel fuel. An important aspect of this analysis is refinery modeling which primarily was used to estimate the costs of blending ethanol into gasoline, as well as the overall refinery industry impacts of the fuel program. A detailed discussion of how the renewable fuel volumes affect refinery gasoline production volumes and cost is contained in Chapter 4 of the RIA.

1. Refinery Modeling Methodology

The refinery modeling was conducted in three distinct steps. The first step involved the establishment of a 2004 base case which calibrated the refinery model against 2004 volumes, gasoline quality, and refinery capital in place. The EPA and ASTM fuel quality constraints in effect by 2004 are imposed on the products.

For the second step, we established two year 2022 future year reference cases which based their energy demand off of the 2009 Annual Energy Outlook (AEO). One of the reference cases assumes business-as-usual demand growth from the AEO 2007 reference case discussed in Section IV.A.1. The other utilized the RFS1 reference case. The refinery modeling results are based on $116 per barrel crude oil prices which are the 2022 projected prices by EIA in its 2009 AEO. We also modeled the implementation of several new environmental programs that will have required changes in fuel quality by 2022, including the 30 part per million (ppm) average gasoline sulfur standard, the 15 ppm cap standards on highway and nonroad diesel fuel, the Mobile Source Air Toxics (MSAT) 0.62 volume percent benzene standard. We also modeled the implementation of EPAct of 2005, which by rescinding the reformulated gasoline oxygenate standard, resulted in the discontinued use of MTBE, and a large increase in the amount of ethanol blended into reformulated gasoline. We also modeled the EISA Energy Bill corporate average fuel economy (café) standards in the reference case because it will be phasing-in, and affect the phase-in of the RFS2.

The third step, or the control cases, involved the modeling of three different possible renewable fuels volumes. The three different volumes were designed to capture the additional use of corn ethanol and biodiesel and a range of cellulosic ethanol and cellulosic diesel fuel volumes. The volumes that we assessed in our analysis are summarized in Section IV.A above.

The price of ethanol and E85 used in the refinery modeling is a critical determinant of the overall economics of using ethanol. Ethanol was priced initially based on the historical average price spread between regular grade conventional gasoline and ethanol, but then adjusted post-modeling to reflect the projected production cost for both corn and cellulosic-based ethanol. The refinery modeling assumed that all ethanol added to gasoline for E10 is match-blended for octane by refiners in the reference and control cases. For the control case, E85 was assumed to be priced lower than gasoline to reflect its lower energy content, longer refueling time and lower availability (see Chapter 4 of the RIA for a detailed discussion for how we projected E85 prices). For the refinery modeling, E85 was assumed to be blended with gasoline blendstock designed for blending with E10, and with butane to bring the RVP of E85 up to that allowed by ASTM International standards for E85. Thus, unlike current practices today where E85 is blended at 85% in the summer and E70 in the winter, we assumed that E85 is blended at 85% year-round. As E85 specifications are still under consideration by ASTM, this assumption may differ from future procedures. E85 use in any one market is limited to levels which we estimated would reflect the ability of FFV vehicles in the area to consume the E85 volume. Our costs also include the incremental costs of producing flexible fuel vehicles (FFVs) over that of conventionally fueled vehicles.

The refinery model was provided some flexibility and also was constrained with respect to the applicable gasoline volatility standards for blending up E10. The refinery model allowed conventional gasoline and most low RVP control programs to increase by 1.0 pounds per square inch (psi) in Reid Vapor Pressure (RVP) waiver during the summer. However, wintertime conventional gasoline was assumed to comply with the wintertime ASTM RVP and Volume/Liquid (V/L) standards.

The costs for producing, distributing and using biodiesel and renewable diesel are accounted for outside the refinery modeling. Their production and distribution costs are estimated first, compared to the costs of producing diesel fuel, and then are added to the costs estimated by the refinery cost model for blending the ethanol.

2. Overall Impact on Fuel Cost

Utilizing the refinery modeling output conducted for today's final rule, we calculated the costs for each control case, which represented the three different renewable fuels scenarios in 2022, relative to the AEO 2007 and RFS1 reference cases. The costs are reported separately for blending ethanol into gasoline, as E10 and E85, and for blending cellulosic diesel fuel, biodiesel and renewable diesel into petroleum-based diesel fuel. These costs do not include the biofuel consumption tax subsidies. The costs are based on 2007 dollars and the capital costs are amortized at seven percent return on investment (ROI) before taxes.

Tables VII.D.2–1 and VII.D.2–2 summarize the costs for each of the three control cases, including the aggregated total for all the fuel changes and the per-gallon costs, relative to the AEO 2007 and RFS1 reference cases, respectively. This estimate of costs reflects the changes in gasoline that are occurring with the expanded use of renewable and alternative fuels. These costs include the labor, utility and other operating costs, fixed costs and the capital costs for all the fuel changes expected. These cost estimates do not account for the various tax subsidies. The per-gallon costs are derived by dividing the total costs over all U.S. gasoline and diesel fuel projected to be consumed in 2022. These costs are only for the incremental renewable fuel volumes beyond the volumes modeled in the two reference cases.

TABLE VII.D.2–1—ESTIMATED FUEL COSTS OF INCREASED VOLUMES OF RENEWABLE FUEL IN 2022 INCREMENTAL TO THE AEO 2007 REFERENCE CASE

[2007 dollars, 7% ROI before taxes]

	Low ethanol case	Primary case (mid-ethanol case)	High ethanol case
Gasoline Impacts:			
$billion/yr	−0.67	−3.31	−5.90
c/gal	−0.48	−2.35	−4.08
Diesel Fuel Impacts:			
$billion/yr	−11.7	−8.5	−1.27
c/gal	−16.4	−12.1	−1.79
Total Impact:			
$billion/yr	−12.4	−11.8	−7.17

Incremental to the AEO 2007 reference case, our analysis shows that for the low ethanol case which models mostly cellulosic diesel instead of cellulosic ethanol, the gasoline and diesel fuel costs are projected to decrease by $0.7 billion and $11.70 billion, respectively, for a total savings of $12.4 billion. Expressed as per-gallon costs, these fuel changes would decrease the cost of producing gasoline and diesel fuel by 0.5 and 16.4 cents per gallon, respectively.

For our primary case which models a mix of cellulosic diesel fuel and cellulosic ethanol, the gasoline and diesel fuel costs are projected to decrease by $3.3 billion and $8.5 billion, respectively, for a total savings of $11.8 billion. Expressed as per-gallon costs, these fuel changes would decrease the cost of producing gasoline and diesel fuel by 2.4 and 12.1 cents per gallon, respectively.

For the high ethanol case where the cellulosic biofuel is cellulosic ethanol (as in the proposal), the gasoline and diesel fuel costs are projected to decrease by $5.9 billion and $1.3 billion, respectively, for a total savings of $7.2 billion. Expressed as per-gallon costs, these fuel changes would decrease the cost of producing gasoline and diesel fuel by 4.1 and 1.8 cents per gallon, respectively.

Crude oil prices have been very volatile over the last several years which raises uncertainty about future crude oil prices. Because our cost model was created to be able to assess the cost of the program at a higher crude oil price, we can also assess the cost at other crude oil prices. As a sensitivity, we varied crude oil prices in our model to find the break-even (no cost) point of the RFS2 program. Using our cost model we estimate that, for the primary control case relative to the AEO 2007 reference case, the RFS2 program (total of gasoline and diesel fuel costs) would break-even at a 2022 crude oil price of $88 per barrel. Thus, in 2022 if crude oil is priced lower than $88 per barrel, the RFS2 program would cost money; if crude oil is priced higher than $88 per barrel, the RFS2 program would result in a cost savings.

TABLE VII.D.2–2—ESTIMATED FUEL COSTS OF INCREASED VOLUMES OF RENEWABLE FUEL IN 2022 INCREMENTAL TO THE RFS1 REFERENCE CASE

[2007 dollars, 7% ROI before taxes]

	Low ethanol case	Primary case (mid-ethanol case)	High ethanol case
Gasoline Impacts:			
$billion/yr	−3.12	−5.63	−7.79
c/gal	−2.24	−4.00	−5.38
Diesel Fuel Impacts:			
$billion/yr	−11.7	−8.6	−1.35
c/gal	−16.5	−12.1	−1.90
Total Impact:			
$billion/yr	−14.8	−14.2	−9.14

Incremental to the RFS1 reference case, our analysis shows that for the low ethanol case which models mostly cellulosic diesel instead of cellulosic ethanol, the gasoline and diesel fuel costs are projected to decrease by $3.1 billion and $11.70 billion, respectively, for a total savings of $14.8 billion. Expressed as per-gallon costs, these fuel changes would decrease the cost of producing gasoline and diesel fuel by 2.4 and 16.5 cents per gallon, respectively.

For our primary case which models a mix of cellulosic diesel fuel and cellulosic ethanol, the gasoline and diesel fuel costs are projected to decrease by $5.6 billion and $8.6 billion, respectively, for a total savings of $14.2.billion. Expressed as per-gallon costs, these fuel changes would decrease the cost of producing gasoline and diesel fuel by 4.0 and 12.1 cents per gallon, respectively.

For the high ethanol case where the cellulosic biofuel is cellulosic ethanol (as in the proposal), the gasoline and diesel fuel costs are projected to decrease by $7.8 billion and $1.4 billion, respectively, for a total savings of $9.1 billion. Expressed as per-gallon costs, these fuel changes would decrease the cost of producing gasoline and diesel fuel by 5.4 and 1.9 cents per gallon, respectively.

Both the gasoline and diesel fuel costs are negative because of the relatively high crude oil prices estimated by EIA for the year 2022. Given the higher projected crude oil prices and these savings, it is difficult to quantify how

much of the increase in renewable fuels and the associated savings is due to the RFS 2 program versus what would have happened regardless in the marketplace. However, even with the high crude oil prices as projected by EIA, some or perhaps even most of the investments in these emerging renewable fuels technologies may not occur without the RFS 2 program in place. The reason for this is that investors are hesitant to invest in emerging technologies when the threat remains for a drop in the price of crude oil leaving their investment dollars stranded. The RFS2 program provides certainty for investors to invest in renewable fuel technologies.

There are two important reasons why the diesel fuel costs are more negative than the gasoline costs when comparing the low ethanol case (high cellulosic diesel case) to the high ethanol case: (1) Cellulosic ethanol costs include the costs for fuel flexible vehicles, while vehicles using cellulosic diesel fuel are not expected to require any vehicle modifications, hence there is no additional estimated cost, (2) the crude oil price adjustment based on crude oil and finished gasoline and diesel fuel price data from 2002 to 2008 increases the estimated production cost for petroleum diesel fuel more so than for gasoline—therefore cellulosic diesel shows a greater cost savings. If the diesel fuel prices do not increase more than gasoline prices with higher crude oil prices, then the significantly higher savings for renewable diesel fuel over that for renewable ethanol would be less than that modeled here.

The increased use of renewable and alternative fuels would require capital investments in corn and cellulosic ethanol plants, and renewable diesel fuel plants. In addition to producing the fuels, storage and distribution facilities along the whole distribution chain, including at retail, will have to be constructed for these new fuels. Conversely, as these renewable and alternative fuels are being produced, they supplant gasoline and diesel fuel demand which results in less new investments in refineries compared to business-as-usual. In Table VII.D.2–3, we list the total incremental capital investments that we project would be made for this RFS2 rulemaking incremental to the RFS1 reference case (refer to Chapter 4 of the RIA for more detail).

TABLE VII.D.2–3—TOTAL PROJECTED U.S. CAPITAL INVESTMENTS TO MEET THE INCREASED VOLUMES OF RENEWABLE FUEL

[Incremental to the AEO 2007 reference case, billion dollars]

Cost type	Plant type	Low ethanol case	Primary case (mid-ethanol case)	High ethanol case
Production Costs	Corn Ethanol	3.9	3.9	3.9
	Cellulosic Ethanol	0	14.3	48.3
	Cellulosic Diesel [a]	96.5	68.0	0
	Renewable Diesel and Algae	1.1	1.1	1.1
Distribution Costs	All Ethanol	5.6	8.2	11.9
	Cellulosic and Renewable Diesel Fuel	2.0	1.4	.....
	Biodiesel	1.2	1.2	1.2
	FFV Costs	0.8	1.8	6.1
	Refining	−10.7	−9.4	−4.1
Total Capital Investments		110.4	90.5	68.4

[a] Cellulosic diesel fuel is assumed to be produced by BTL plants which is a very capital intensive technology. If some or even most of this volume comes from other cellulosic diesel fuel technologies which are less capital intensive, the capital costs attributed to cellulosic diesel would be much lower.

Table VII.D.2–3 shows that the total U.S. capital investments attributed to this program ranges from $71 to $111 billion in 2022 for the high ethanol to low ethanol cases. The capital investments made for renewable fuels technologies are much more than the decrease in refining industry capital investments because (1) a large part of the decrease in petroleum gasoline supply was from reduced imports, (2) renewable fuels technologies are more capital intensive per gallon of fuel produced than incremental increases in gasoline and diesel fuel production at refineries, and (3) ethanol and biodiesel require considerable distribution and retail infrastructure investments.

VIII. Economic Impacts and Benefits

A. Agricultural and Forestry Impacts

EPA used two principal tools to model the potential domestic and international impacts of the RFS2 on the U.S. and global agricultural sectors. The Forest and Agricultural Sector Optimization Model (FASOM), developed by Professor Bruce McCarl of Texas A&M University and others, provides detailed information on the domestic agricultural and forestry sectors, as well as greenhouse gas impacts of renewable fuels. The Food and Agricultural Policy Research Institute (FAPRI) at Iowa State University and the University of Missouri-Columbia maintains a number of econometric models that are capable of providing detailed information on impacts on international agricultural markets from the wider use of renewable fuels in the U.S. EPA worked directly with the Center for Agriculture and Rural Development (CARD) at Iowa State University to implement the FAPRI model to analyze the impacts of the RFS2 on the global agriculture sector. Thus, this model will henceforth be referred to as the FAPRI–CARD model.

FASOM is a long-term economic model of the U.S. agriculture and forestry sectors that attempts to maximize total revenues for producers while meeting the demands of consumers. FASOM can be utilized to estimate which crops, livestock, forest stands, and processed agricultural and forestry products would be produced in the U.S. given RFS2 biofuel requirements. In each model simulation, crops compete for price sensitive inputs such as land and labor at the regional level and the cost of these and other inputs are used to determine the price and level of production of primary commodities (*e.g.,* field crops, livestock, and biofuel products). FASOM also estimates prices using costs associated with the processing of primary commodities into secondary products (e.g., converting livestock to meat and

dairy, crushing soybeans to soybean meal and oil, etc.). FASOM does not capture short-term fluctuations (*i.e.,* month-to-month, annual) in prices and production, however, as it is designed to identify long-term trends (*i.e.,* five to ten years).

There are a few notable changes that have been made to both the FASOM and FAPRI–CARD models, as well as to some of the underlying assumptions used in the agro-economic analysis since the release of the proposed rulemaking analysis. These changes were made as a result of further research and consultation with experts, as well as in response to comments received during the public comment period following the release of the proposed rulemaking. In regards to the FASOM model, the first major change made to the model is the inclusion of the full interaction between the forestry and agriculture sectors, as discussed in the NPRM and supported by comments received. For the proposed rulemaking, the FASOM model was only capable of modeling the changes in the agriculture sector alone. In terms of land use, the only land use that could be examined was cropland and pasture use. With the incorporation of a forestry sector that dynamically interacts with the agriculture, we are able to examine how crop and forest acres compete for land in response to changes in policy. Also, similar to the agriculture sector, the forestry sector has its own set of forestry products, including logging and milling residues that are available for the production of cellulosic ethanol.

The second major change to the FASOM model is the addition of a full accounting of major land types in the U.S., including cropland, cropland pasture, forestland, forest pasture, rangeland, acres enrolled in the Conservation Reserve Program (CRP), and developed land. These changes address comments raised by peer reviewers and the general public that we should more explicitly link the interaction between livestock, pasture land, cropland, and forest land, as well as have a detailed accounting of acres in the U.S. across different land uses. Cropland is actively managed cropland, used for both traditional crops (*e.g.,* corn and soybeans) and dedicated energy crops (e.g., switchgrass). Cropland pasture is managed pasture land used for livestock production, but which can also be converted to cropland production. Forestland contains a number of sub-categories, tracking the number of acres both newly and continually harvested (reforested), the number of acres harvested and converted to other land uses (afforested), as well as the amount of forest acres on public land. Forest pasture is unmanaged pasture land with varying amounts of tree cover that can be used for livestock production. A portion of this land may be used for timber harvest. Rangeland is unmanaged land that can be used for livestock grazing production. While the amount of rangeland idled or used for production may vary, rangeland may not be used for any other purpose than for cattle grazing.

A third major change in the FASOM model is the adoption of updated cellulosic ethanol conversion rates. We updated the cellulosic ethanol conversion rates based on new data provided by the National Renewable Energy Laboratory (NREL). The new analysis by NREL simplified and updated the conversion yields of the different types of feedstocks. As a result of these changes, the gallons per ton yields for switchgrass and several other feedstocks increased from the values used in the proposal, while the yields for corn residue and several other feedstocks decreased slightly from the NPRM values. In addition, we also updated our feedstock production yields based on new work conducted by the Pacific Northwest National Laboratory (PNNL).[337] This analysis increased the tons per acre yields for several dedicated energy crops. These changes increased the amount of cellulosic ethanol projected to come from energy crops. Additional details on the FASOM model changes can be found in Chapter 5 of the RIA.

The FAPRI–CARD models are econometric models covering many agricultural commodities. These models capture the biological, technical, and economic relationships among key variables within a particular commodity and across commodities. They are based on historical data analysis, current academic research, and a reliance on accepted economic, agronomic, and biological relationships in agricultural production and markets. The international modeling system includes international grains, oilseeds, ethanol, sugar, and livestock models. In general, for each commodity sector, the economic relationship that supply equals demand is maintained by determining a market-clearing price for the commodity. In countries where domestic prices are not solved endogenously, these prices are modeled as a function of the world price using a price transmission equation. Since econometric models for each sector can be linked, changes in one commodity sector will impact other sectors. Elasticity values for supply and demand responses are based on econometric analysis and on consensus estimates.

As one of the largest and fastest developing countries in the world, a major producer and exporter of sugar ethanol, and in possession of one of the world's largest carbon sinks, the Amazon, Brazil is acknowledged to be an important part of our analysis in terms of indirect land use change. For the proposal's analysis, the FAPRI–CARD model analyzed Brazil at a national level as any other non-US nation in the model, covering only crop area and commodity prices. Comments and feedback received indicated the importance of analyzing Brazil at a regional level, given its diverse natural lands across the country, and to also closely examine livestock production in terms of land use.

In response to these comments, the FAPRI–CARD model now includes an integrated Brazil module that provides additional detail on agricultural land use in Brazil for six geographic regions. The new Brazil module explicitly models the competition between cropland and pastureland used for livestock production in each region. In addition, the Brazil module allows for region-specific agriculture practices such as double cropping and livestock intensification in response to higher commodity prices. The addition of the Brazil module allows for a more refined analysis of land use change and economic impacts in Brazil than what was able to be done for the proposal's analysis.

Another topic that we received comments on was in regards to price-induced yields. Namely that with an increase in price for a particular crop, seed producers and/or farmers have a greater incentive to increase yields for that particular crop in order to maximize revenue. In the analysis for proposal, the FAPRI–CARD model did not include impacts of commodity price changes on yields. For the final rulemaking, the FAPRI–CARD model now includes feedback from changes in commodity prices on yields. The elasticities for these responses are based on an econometric analysis of historical data on yield and price changes for various commodities. Additional details on the FAPRI–CARD modeling updates can be found in Chapter 5 of the RIA.

In the NPRM, we specifically requested comments on our assumptions regarding distiller grain with solubles (DGS) replacement rates.

[337] Thomson, A.M., R.C. Izarrualde, T.O. West, D.J. Parrish, D.D. Tyler, and J.R. Williams. 2009. *Simulating Potential Switchgrass Production in the United States.* PNNL–19072. College Park, MD: Pacific Northwest National Laboratory.

For the proposal, we assumed that one pound of DGS replaced one pound of total of corn and soybean meal for all fed animals. We received numerous comments on this assumption. Many commenters suggested that we adopt the replacement rates included in the recent research by Argonne National Laboratory (ANL) and others.[338] The ANL study found that one pound of DGS can be used to replace 1.196 pounds total of corn and soybean meal for various fed animals due to the higher nutritional content of DGS per pound compared to corn and soybean meal. For the final rulemaking analysis, these replacement rates are incorporated in both the FASOM and FAPRI–CARD models, and are treated as a maximum replacement rate possibility that is fully phased in by 2015. In addition, the maximum inclusion rates for DGS in an animal's diet have also been incorporated into the models. Given these parameters, each agriculture sector model determines the total quantity of DGS used in feed based on relative prices for competing feed sources.

In addition, both FASOM and FAPRI–CARD now explicitly model corn oil from the dry mill ethanol extraction process as a new source of biodiesel. Based on engineering research (refer to Section VII.A) regarding expected technological adoption, it is estimated that 70% of dry mill ethanol plants will withdraw corn oil via extraction (from DGS), resulting in corn oil that is non-food grade and can only be used as a biodiesel source; 20% will withdraw corn oil via fractionation (prior to the creation of DGS), resulting in corn oil that is food-grade; and 10% will do neither extraction or fractionation. Based on this research, both the FASOM and FAPRI–CARD models are estimating that approximately 681 million gallons of biodiesel can be produced from non-food grade corn oil from extraction by 2022 in the Control Case. Additional information regarding these changes to the FASOM and FAPRI–CARD models can be found in RIA Chapter 5.

1. Biofuel Volumes Modeled

For the agricultural sector analysis using the FASOM and FAPRI–CARD models of the RFS2 biofuel volumes, we assumed 15 billion gallons (Bgal) of corn ethanol would be produced for use as transportation fuel by 2022, an increase of 2.7 Bgal from the Reference Case. Also, we modeled 1.7 Bgal of biodiesel use as fuel in 2022, an increase of 1.3 Bgal from the Reference Case. In addition, we modeled an increase of 16 Bgal of cellulosic ethanol in 2022. In FASOM, this volume consists of 4.9 billion gallons of cellulosic ethanol coming from corn residue in 2022, 7.9 billion gallons from switchgrass, 0.6 billion gallons from sugarcane bagasse, and 0.1 billion gallons from forestry residues.

Given the nature of the models, there are some limitations on what each model may explicitly model as a biofuel feedstock source. For example, since FASOM is a domestic agricultural sector model it cannot be utilized to examine the impacts of the wider use of biofuel imports into the U.S. Similarly, the FAPRI–CARD model does not explicitly model the forestry sector in the U.S. and therefore does not include biofuels produced from the U.S. forestry sector. Also, neither of the two models used for this analysis—FASOM or FAPRI–CARD—include biofuels derived from domestic municipal solid waste. Thus, for the RFS2 agricultural sector analysis, these biofuel sources are analyzed outside of the agricultural sector models.

All of the results presented in this section are relative to the AEO 2007 Reference Case renewable fuel volumes, which include 12.3 Bgal of grain-based ethanol, 0.4 Bgal of biodiesel, and 0.3 Bgal of cellulosic ethanol in 2022. The domestic figures are provided by FASOM, and all of the international numbers are provided by FAPRI–CARD. The detailed FASOM results, detailed FAPRI–CARD results, and additional sensitivity analyses are described in more detail in the RIA.

TABLE VIII.A.1–1—ETHANOL SOURCE VOLUMES MODELED IN 2022

[Billions of gallons]

Ethanol source	AEO 2007 reference case	Control case	Change
Corn Ethanol	12.3	15.0	2.7
Corn Residue Cellulosic Ethanol *	0	4.9	4.9
Sugarcane Bagasse Cellulosic Ethanol *	0.2	0.6	0.4
Switchgrass Cellulosic Ethanol *	0	7.9	7.9
Forestry Residue Cellulosic Ethanol *	0	0.1	0.1
Net Imports of Sugarcane Ethanol **	0.6	2.2	1.6
Other Ethano ***	0.1	2.6	2.5

* Cellulosic Ethanol feedstocks are not explicitly modeled in FAPRI–CARD.
** Net Imports of Sugarcane Ethanol is not explicitly modeled in FASOM.
*** Includes MSW, which is not explicitly modeled by either FASOM or FAPRI–CARD.

TABLE VIII.A.1–2—BIODIESEL SOURCE VOLUMES MODELED IN 2022

[Millions of gallons]

Biodiesel source	AEO 2007 reference case	Control case	Change
Soybean Oil	119.9	659.4	539.5
Corn Oil (Dry Mill Extraction)	0.4	681.3	680.8
Animal Fats	93.9	126.9	33.0
Yellow Grease	170.9	253.1	82.3

[338] Salil Arora, May Wu, and Michael Wang, "Update of Distillers Grains Displacement Ratios for Corn Ethanol Life-Cycle Analysis," September 2008. *See http://www.transportation.anl.gov/pdfs/AF/527.pdf.*

2. Commodity Price Changes

For the scenario modeled, FASOM predicts that in 2022 U.S. corn prices would increase by $0.27 per bushel (8.2%) above the Reference Case price of $3.32 per bushel. By 2022, U.S. soybean prices would increase by $1.02 per bushel (10.3%) above the Reference Case price of $9.85 per bushel. In 2022, U.S. soybean oil prices would increase $183.32 per ton (37.9%) above the Reference Case price of $483.10 per ton. Hardwood lumber prices are unaffected by the increase in biofuel demand, however softwood lumber prices increase by $0.46 per board foot (0.1%) in 2022 to $386 per board foot. Additional price impacts are included in Section 5 of the RIA.

TABLE VIII.A.2–1—CHANGE IN U.S. COMMODITY PRICES FROM THE AEO 2007 REFERENCE CASE

[2007$]

Commodity	Change	% Change
Corn	0.27/bushel	8.2
Soybeans	1.02/bushel	10.3
Soybean Oil	183.32/ton	37.9
Hardwood Lumber	0.00/board foot	0
Softwood Lumber	0.46/board foot	0.1

By 2022, the price of switchgrass would increase by $20.12 per wet ton to the Control Case price of $40.85 per wet ton. Additionally, the farm gate feedstock price of corn residue would increase by $29.48 per wet ton to the Control Case price of $34.49 per wet ton. The price of sugarcane bagasse would increase $23.27 to the Control Case price of $29.70 per wet ton by 2022. Softwood logging residue prices would increase $8.99 per wet ton to $18.37 per wet ton in the Control Case in 2022. Similarly, the price of hardwood logging residues would increase by $17.85 per wet ton to the Control Case price of $23.22 per wet ton in 2022. These prices do not include the storage, handling, or delivery costs, which would result in a delivered price to the ethanol facility of at least twice the farm gate cost, depending on the region.

TABLE VIII.A.2–2—CHANGE IN U.S. CELLULOSIC FEEDSTOCK PRICES FROM THE AEO 2007 REFERENCE CASE

[2007$]

Commodity	Control case price	Change
Switchgrass	$40.85/wet ton	$20.12/wet ton.
Corn Residue	34.49/wet ton	29.48/wet ton.
Sugarcane Bagasse	29.70/wet ton	23.27/wet ton.
Softwood Logging Residue	18.37/wet ton	8.99/wet ton.
Hardwood Logging Residue	23.22	17.85/wet ton.

3. Impacts on U.S. Farm Income

The increase in renewable fuel production provides a significant increase in net farm income to the U.S. agricultural sector. FASOM predicts that net U.S. farm income would increase by $13 billion dollars in 2022 (36%), relative to the AEO 2007 Reference Case.

4. Commodity Use Changes

Changes in the consumption patterns of U.S. corn can be seen by the increasing percentage of corn used for ethanol. FASOM estimates the amount of domestically produced corn used for ethanol in 2022 would increase to 40.5%, relative to the 33.2% usage rate under the Reference Case.

The rising price of corn and soybeans in the U.S. would also have a direct impact on how corn is used. Higher domestic corn prices would lead to lower U.S. exports as the world markets shift to other sources of these products or expand the use of substitute grains. FASOM estimates that U.S. corn exports would drop 188 million bushels (−8.2%) to 2.1 billion bushels by 2022. In value terms, U.S. exports of corn would fall by $57 million (−0.8%) to $7.5 billion in 2022. U.S. exports of soybeans would also decrease due to the increased use of renewable fuels. FASOM estimates that U.S. exports of soybeans would decrease 135 million bushels (−13.6%) to 858 million bushels by 2022. In value terms, U.S. exports of soybeans would decrease by $453 million (−4.6%) to $9.3 billion in 2022.

TABLE VIII.A.4–1—CHANGE IN U.S. EXPORTS FROM THE AEO 2007 REFERENCE CASE IN 2022

	Change (millions)	% Change
Exports		
Corn in Bushels	−188	−8.2
Soybeans in Bushels	−135	−13.6

TABLE VIII.A.4–1—CHANGE IN U.S. EXPORTS FROM THE AEO 2007 REFERENCE CASE IN 2022—Continued

	Change (millions)	% Change
Total Value of Exports		
Corn (2007$)	− $57	−0.8
Soybeans (2007$)	− $453	−4.6

Lumber production in the U.S. is affected as well, as forestry acres decrease as a result of expanding crop acres (*see* below). In 2022, hardwood lumber production increases by 0.2%, and softwood production decreases by −0.2%.

TABLE VIII.A.4–2—PERCENT CHANGE IN U.S. LUMBER PRODUCTION FROM THE AEO 2007 REFERENCE CASE IN 2022

Commodity	% Change
Hardwood Lumber	0.2

TABLE VIII.A.4–2—PERCENT CHANGE IN U.S. LUMBER PRODUCTION FROM THE AEO 2007 REFERENCE CASE IN 2022—Continued

Commodity	% Change
Softwood Lumber	−0.2

Higher U.S. demand for corn for ethanol production would cause a decrease in the use of corn for U.S. livestock feed. Substitutes are available for corn as a feedstock, and this market is price sensitive. Several ethanol processing byproducts could also be used to replace a portion of the corn used as feed, depending on the type of animal. One of the major byproducts of the ethanol production process that can be used as a feed source, and as a substitute for corn and soybean meal, is distiller grains with solubles (DGS). DGS are a by-product of the dry mill ethanol production process. As discussed above, the replacement rates of DGs for corn and soybean meal in the diets of fed animals is higher than what was used in the proposal based on the latest scientific research regarding nutritional content of feed sources. In addition, as discussed above and in Chapter VI, there are new processes for withdrawing corn oil from the dry mill ethanol production process. Therefore, we are now modeling two types of DGS: Those that are created during the extraction/fractionation process (fractionated DGS), and those created in plants that do not conduct fractionation or extraction (traditional DGS). In addition, other byproducts that can be used as feed substitutes include gluten meal and gluten feed, which are byproducts of wet milling ethanol production. In 2022, traditional DGS used in feed decreases by 27.5 million tons from the Reference Case to 6.5 million tons in the Control Case. However, the use of fractionated DGS increases by 32.7 million tons from 20 thousand tons used in the Reference Case in 2022. Gluten meal used in feed decreases by 0.1 million tons (−4.5%) to 2.1 million tons in the Control Case. Gluten feed use increases by 0.3 million tons (6.4%) in 2022 to 4.8 million tons in the Control Case. By 2022, FASOM predicts total ethanol byproducts used in feed would increase by 5.4 million tons (13.2%) to 46.1 million tons, compared to 40.8 million tons under the Reference Case.

TABLE VIII.A.4–3—CHANGE IN ETHANOL BYPRODUCTS USE IN FEED RELATIVE TO THE AEO 2007 REFERENCE CASE

[Millions of tons]

Category	Control case	Change
DGS (Traditional)	6.5	−27.5
DGS (Fractionated)	32.7	32.7
Gluten Meal	2.1	−0.1
Gluten Feed	4.8	0.3
Total Ethanol Byproducts	46.1	5.4

The EISA cellulosic ethanol requirements result in the production of residual agriculture and forestry products, as well as dedicated energy crops. By 2022, FASOM predicts production of 97.4 million tons of switchgrass and 59.9 million tons of corn residue. Sugarcane bagasse for cellulosic ethanol production increases by 6 million tons to 9.6 million tons in 2022 relative to the Reference Case. In addition, FASOM predicts production of 1.7 million tons of forestry residues for cellulosic ethanol production.

5. U.S. Land Use Changes

Higher U.S. corn prices would have a direct impact on the value of U.S. agricultural land. As demand for corn and other farm products increases, the amount of land devoted to cropland production would increase. FASOM estimates an increase of 3.6 million acres (4.6%) in harvested corn acres, relative to 77.9 million acres harvested under the Reference Case by 2022.[339] Most of the new corn acres come from a reduction in existing crop acres, such as rice, wheat, and hay.

Though demand for biodiesel increases, FASOM predicts a fall in U.S. soybean acres harvested. According to the model, harvested soybean acres would decrease by approximately 1.4 million acres (−2.1%), relative to the Reference Case acreage of 68.1 million acres in 2022. Despite the decrease in soybean acres in 2022, soybean oil production would increase by 0.5 million tons (4.7%) by 2022 over the Reference Case. This occurs due to the decrease in soybean exports mentioned above. Additionally, FASOM predicts that soybean oil exports would decrease 1.2 million tons by 2022 (−51%) relative to the Reference Case.

As the demand for cellulosic ethanol increases, most of the production is derived from switchgrass. By 2022, switchgrass acres from nearly zero acres in the Reference Case, to 12.5 million acres in the Control Case as demand for cellulosic ethanol increases between cases. Similarly, as demand for cellulosic ethanol from bagasse increases, sugarcane acres increase by 0.1 million acres (20%) to 0.9 million acres by 2022. Although we received comments suggesting that acres enrolled in the Conservation Reserve Program (CRP) may decrease below the 32 million acres assumed in the NPRM, we did not revise this assumption for several reasons. First, the commodity price changes predicted by FASOM are relatively modest and would therefore have a limited impact on the decision to re-enroll in the program. Second, the CRP program is designed to allow for increased payment if land rental rates increase. Therefore, for the reasons outlined in the NPRM, we believe the assumption that CRP acres will not drop below 32 million acres is a plausible future projection.

TABLE VIII.A.5–1—CHANGE IN U.S. CROP ACRES RELATIVE TO THE AEO 2007 REFERENCE CASE IN 2022

[Millions of acres]

Crop	Change	% Change
Corn	3.6	4.6
Soybeans	−1.4	−2.1
Sugarcane	0.1	20
Switchgrass	12.5	20,000

With the increase in biofuel demand that results from the implementation of the RFS2 policy, there is an increase of 3.1 million acres are dedicated towards crop production. This increase in crop acres results in a decrease of −1.9 million pasture acres, an increase of 1.1 million acres of forest pasture, and a decrease of 1.2 million forestry acres.

TABLE VIII.A.5–2—CHANGE IN U.S. CROP ACRES RELATIVE TO THE AEO 2007 REFERENCE CASE IN 2022

[Millions of acres]

Land type	Change	% Change
Cropland	3.1	1.0
Cropland Pasture	−1.9	−5.8
Forest Pasture	1.1	0.7
Forestry	−1.2	−0.3

The additional demand for corn and other crops for biofuel production also results in increased use of fertilizer in the U.S. In 2022, FASOM estimates that U.S. nitrogen fertilizer use would increase 1.5 billion pounds (5.7%) over

[339] Total U.S. planted corn acres increases to 87.1 million acres from the Reference Case level of 83.5 million acres in 2022.

the Reference Case nitrogen fertilizer use of 26.2 billion pounds. In 2022, U.S. phosphorous fertilizer use would increase by 714 million pounds (12.7%) relative to the Reference Case level of 5.6 billion pounds.

TABLE VIII.A.5–3—CHANGE IN U.S. FERTILIZER USE RELATIVE TO THE AEO 2007 REFERENCE CASE

[Millions of pounds]

Fertilizer	Change	% Change
Nitrogen	1,501	5.7
Phosphorous	714	12.7

6. Impact on U.S. Food Prices

Due to higher commodity prices, FASOM estimates that U.S. food costs [340] would increase by roughly $10 per person per year by 2022, relative to the Reference Case.[341] Total effective farm gate food costs would increase by $3.6 billion (0.2%) in 2022.[342] To put these changes in perspective, average U.S. per capita food expenditures in 2007 were $3,778 or approximately 10% of personal disposable income. The total amount spent on food in the U.S. in 2007 was $1.14 trillion dollars.[343]

7. International Impacts

Changes in the U.S. agriculture economy are likely to have affects in other countries around the world in terms of trade, land use, and the global price and consumption of fuel and food. We utilized the FAPRI–CARD model to assess the impacts of the increased use of renewable fuels in the U.S. on world agricultural markets.

The FAPRI–CARD modeling shows that world corn prices would increase by $0.12 per bushel (3.1%) to $3.88 per bushel in 2022, relative to the Reference Case. The impact on world soybean prices is somewhat smaller, increasing $0.08 per bushel (0.8%) to $9.63 per bushel in 2022.

This increase in international commodity prices has a direct impact on world food consumption.[344] The FAPRI–CARD model indicates that world consumption of corn for food would decrease by 0.6 million metric tons in 2022 relative to the Reference Case. Similarly, the FAPRI–CARD model estimates that world consumption of oil for food *(e.g.,* vegetable oils) decreases by 1.7 million metric tons by 2022. Wheat consumption is not estimated to change substantially in 2022. The model also estimates a small change in world meat consumption, decreasing by -0.1 million metric tons in 2022. When considering all the food uses included in the model, world food consumption decreases by 2.4 million metric tons by 2022 (−0.11%). While FAPRI–CARD provides estimates of changes in world food consumption, estimating effects on global nutrition is beyond the scope of this analysis.

TABLE VIII.A.7–1—CHANGE IN WORLD FOOD CONSUMPTION RELATIVE TO THE AEO 2007 REFERENCE CASE

[Millions of metric tons]

Category	2022
Corn	−0.6
Wheat	0.0
Vegetable Oils	−1.7
Meat	−0.1
Total Food	−2.4

Additional information on the U.S. agricultural and forestry sectors, as well as international trade impacts are described in more detail in the RIA (Chapter 5).

B. Energy Security Impacts

Increasing usage of renewable fuels helps to reduce U.S. petroleum imports. A reduction of U.S. petroleum imports reduces both financial and strategic risks associated with a potential disruption in supply or a spike in cost of a particular energy source. This reduction in risks is a measure of improved U.S. energy security. In this section, we detail an updated methodology for estimating the energy security benefits of reduced U.S. oil imports which explicitly includes biofuels and, based upon this updated approach, we estimate the monetary value of the energy security benefits of the RFS2 required renewable fuel volumes.

1. Implications of Reduced Petroleum Use on U.S. Imports

In 2008, U.S. petroleum import expenditures represented 21% of total U.S. imports of all goods and services.[345] In 2008, the U.S. imported 66% of the petroleum it consumed, and the transportation sector accounted for 70% of total U.S. petroleum consumption. This compares to approximately 37% of petroleum from imports and 55% consumption of petroleum in the transportation sector in 1975.[346] It is clear that petroleum imports have a significant impact on the U.S. economy. Requiring the wider use of renewable fuels in the U.S. is expected to lower U.S. petroleum imports.

For this final rule, EPA estimated the reductions in U.S. petroleum imports using a modified version of the National Energy Modeling System (EPA–NEMS). EPA–NEMS is an energy-economy modeling system of U.S. energy markets through the 2030 time period. EPA–NEMS projects U.S. production, imports, conversion, consumption, and prices of energy; subject to assumptions on world energy markets, resource availability and costs, behavioral and technological choice criteria, cost and performance characteristics of energy technologies, and demographics. For this analysis, the 2009 NEMS model was modified to use the 2007 (pre-EISA) Annual Energy Outlook (AEO) levels of biofuels in the Reference Case. These results were compared to our Control Case, which assumes the renewable fuel volumes required by EISA will be met by 2022. The reductions in U.S. oil imports projected by EPA–NEMS as a result of the RFS2 is approximately 0.9 million barrels per day, which amounts to about $41.5 billion in lower crude oil and refined product import payments in 2022.

2. Energy Security Implications

In order to understand the energy security implications of the increased use of renewable fuels, EPA used the Oil

[340] FASOM does not calculate changes in price to the consumer directly. The proxy for aggregate food price change is an indexed value of all food prices at the farm gate. It should be noted, however, that according to USDA, approximately 80% of consumer food expenditures are a result of handling after it leaves the farm (*e.g.,* processing, packaging, storage, marketing, and distribution). These costs consist of a complex set of variables, and do not necessarily change in proportion to an increase in farm gate costs. In fact, these intermediate steps can absorb price increases to some extent, suggesting that only a portion of farm gate price changes are typically reflected at the retail level. *See http://www.ers.usda.gov/publications/foodreview/septdec00/FRsept00e.pdf.*

[341] These estimates are based on U.S. Census population projections of 331 million people in 2017 and 348 million people in 2022. *See http://www.census.gov/population/www/projections/summarytables.html.*

[342] Farm Gate food prices refer to the prices that farmers are paid for their commodities.

[343] See *www.ers.usda.gov/Briefing/CPIFoodAndExpenditures/Data/table15.htm.*

[344] The food commodities included in the FAPRI model include corn, wheat, sorghum, barley, soybeans, sugar, peanuts, oils, beef, pork, poultry, and dairy products.

[345] Source: U.S. Bureau of Economic Analysis, U.S. International Transactions Accounts Data, as shown on June 24, 2009.

[346] Source: U.S. Department of Energy, Annual Energy Review 2008, Report No. DOE/EIA–0384(2008), Tables 5.1 and 5.13c, June 26, 2009.

Security Metrics Model [347] [348] (OSMM), developed and maintained by Oak Ridge National Laboratory. This model examines the future economic costs of oil imports and oil supply disruptions to the U.S., grouping costs into (1) the higher costs for oil imports resulting from the effect of U.S. import demand on the world oil price and OPEC market power (i.e., the "import demand" or "monopsony" costs); and (2) the expected cost of reductions in U.S. economic output and disruption of the U.S. economy caused by sudden disruptions in the supply of imported oil to the U.S. (i.e., macroeconomic disruption/adjustment costs). Beginning with Reference projections for the oil and liquid fuel markets from the EIA's 2009 AEO, the OSMM compares costs under those futures with selected cases under differing energy policies and technology mixes. It provides measures of expected costs and risk by probabilistic simulation through 2022. Uncertainty is inherent in energy security analysis, and it is explicitly represented for long-run future oil market conditions, disruption events, and key parameters.

An important aspect of the OSMM is that it explicitly addresses the energy security implications of the wider use of biofuels as transportation fuels in the U.S. Increased use of biofuels not only results in changes in the levels of U.S. oil imports and consumption, but also can alter key supply and demand oil elasticities. The elasticities are significant for energy security since they measure the potential for substitution away from oil, in the long and short-run, depending on how oil prices evolve and whether oil supply disruptions occur. Also, the OSMM accounts for the potential of supply disruptions from biofuels. For example, there could be a drought in the U.S. that could cause a reduction in the supply of key agricultural feedstocks (i.e., corn) that are used to make ethanol. To the extent that supply disruptions in feedstocks used to make biofuels are correlated with oil supply disruptions, the energy security benefits of biofuels may be lessened, by substituting one fuel with supply disruptions for another. For this analysis, the energy security implications of the wider use of biofuels in the U.S. are broken down between biofuels produced domestically (*e.g.,* ethanol made from corn/switchgrass, soy-based biodiesel) and imported biofuels (*e.g.,* ethanol made from sugarcane).

For the proposed RFS2 rule, EPA worked with Oak Ridge National Laboratory (ORNL), which has developed approaches for evaluating the social costs and energy security implications of oil use. In the study entitled "*The Energy Security Benefits of Reduced Oil Use, 2006–2015,*" completed in March, 2008, ORNL updated and applied the analytical approach used in the 1997 Report "*Oil Imports: An Assessment of Benefits and Costs.*" [349] [350] This study is included as part of the record in this rulemaking.[351] This study underwent a Peer Review, sponsored by the Agency.

The prior approach that ORNL has developed estimates the incremental benefits to society, in dollars per barrel, of reducing U.S. oil imports, called the "oil import premium". With OSMM, ORNL uses a consistent approach, estimating the incremental cost to the U.S. of the increased use of renewable fuels required by EISA, and reporting that cost in dollars per barrel of biofuel. In this case, these increased volumes alter both the U.S. oil import and consumption levels, while introducing a substitute fuel and altering demand responsiveness. As before, OSMM considers the economic cost of importing petroleum into the U.S. The economic cost of importing petroleum into the U.S. was defined as (1) the higher costs for oil imports resulting from the effect of U.S. import demand on the world oil price and OPEC market power (i.e., "monopsony" costs); and (2) the risk of reductions in U.S. economic output and disruption of the U.S. economy caused by sudden disruptions in the supply of imported oil to the U.S. (i.e., macroeconomic disruption/adjustment costs). Maintaining a U.S. military presence to help secure stable oil supply from potentially vulnerable regions of the world is also a measure of energy security, but has been excluded from this analysis because its attribution to particular military missions or activities is difficult.

a. Effect of Oil Use on Long-Run Oil Price, U.S. Import Costs, and Economic Output

The first component of the economic costs of importing petroleum into the U.S. follows from the effect of U.S. import demand on the world oil price over the long-run. Because the U.S. is a sufficiently large purchaser of foreign oil supplies, its purchases can affect the world oil price. This monopsony power means that increases in U.S. petroleum demand can cause the world price of crude oil to rise, and conversely, that reduced U.S. petroleum demand can reduce the world price of crude oil. Thus, one benefit of decreasing U.S. oil purchases is the potential decrease in the crude oil price paid for all crude oil purchased.

In the case of the RFS2, increasing U.S. demand for biofuels partially offsets the U.S. oil market import cost reduction. The offset is because the RFS2 results in a modest increases in biofuels imported to the U.S. (1.6 billion gallons in 2022), and a modest increase in the world ethanol price (from $1.48/gallon to $1.61/gallon, a $0.13/gallon increase in 2022). Thus, the biofuels that the U.S. had imported would be higher priced, partially offsetting the reduction in U.S. oil import costs. The ORNL estimates this monopsony component of the energy security benefit (oil market and biofuel market impacts combined) is $7.86/barrel of biofuel (2007$) for the year 2022, as shown in Table VIII.B.2–1. Based upon the 90 percent confidence interval, the monopsony portion of the energy security benefit ranges from $5.37 to $10.71/barrel of biofuel in the year 2022.

b. Short-Run Disruption Premium From Expected Costs of Sudden Supply Disruptions

The second component of the external economic costs resulting from U.S. oil imports arises from the vulnerability of the U.S. economy to oil shocks. The cost of shocks depends on their likelihood, size, and length; the capabilities of the market and U.S. Strategic Petroleum

[347] The OSMM methods are consistent with the recommended methodologies of the National Resource Council's (NRC's) (2005) Committee on Prospective Benefits of DOE's Energy Efficiency and Fossil Energy R&D Programs. The OSMM defines and implements a method that makes use of the NRC's typology of prospective benefits and methodological framework, satisfies the NRC's criteria for prospective benefits evaluation, and permits measurement of prospective energy security benefits for policies and technologies related to oil. It has been used to estimate the prospective oil security benefits of Department of Energy's Energy Efficiency and Renewable Energy R&D programs, and is also applicable to other strategies and policies aimed at changing the level and composition of U.S. petroleum demand. To evaluate the RFS2, the OSMM was modified to include supplies and demand of biofuels (principally ethanol) as well as petroleum.

[348] Leiby, P.N., *Energy Security Impacts of Renewable Fuel Use Under the RFS2 Rule—Methodology,* Oak Ridge National Laboratory, January 19, 2010.

[349] Leiby, Paul N., Donald W. Jones, T. Randall Curlee, and Russell Lee, *Oil Imports: An Assessment of Benefits and Costs,* ORNL–6851, Oak Ridge National Laboratory, November, 1997.

[350] The 1997 ORNL paper was cited and its results used in DOT/NHTSA's rules establishing CAFE standards for 2008 through 2011 model year light trucks. *See* DOT/NHTSA, Final Regulatory Impacts Analysis: Corporate Average Fuel Economy and CAFE Reform MY 2008–2011, March 2006.

[351] Leiby, Paul N. "Estimating the Energy Security Benefits of Reduced U.S. Oil Imports," Oak Ridge National Laboratory, ORNL/TM–2007/028, Final Report, 2008.

Reserve (SPR) to respond; and the sensitivity of the U.S. economy to sudden price increases. The total vulnerability of the U.S. economy to oil price shocks depends on the levels of both U.S. petroleum consumption and imports. Variation in oil consumption levels can change the sensitivity of the economy to oil price shocks, and variation in import levels or demand flexibility can affect the magnitude of potential increases in oil price due to supply disruptions

A major strength of the OSMM is that it addresses risk-shifting that might occur as the U.S. reduces its dependency on petroleum and increases its use of biofuels, which the other "oil premium model" could not. The prior "oil premium" analysis focused only on the potential for biofuels to reduce U.S. oil imports, and the resulting implications of lower U.S. oil imports for energy security. As the U.S. relies more heavily on biofuels, such as corn-based ethanol, there could be adverse consequences from a supply-disruption perspective associated with, for example, a long-term drought. Alternatively, a supply disruption of petroleum will more likely be caused by geopolitical factors rather than extreme weather conditions. Hence, the causal factors of a supply-disruption from imported petroleum and, alternatively, biofuels, are likely to be unrelated. Thus, diversifying the sources of U.S. transportation fuel is expected to provide energy security benefits. Biofuel supply disruptions are represented based on the historical volatility of yields for biofuel feedstocks or similar crops. The ORNL estimates this macroeconomic/disruption component of the energy security benefit (oil market and biofuel market impacts combined) is $6.56/barrel (2007$) for the year 2022, as shown in Table VIII.B.2–1. Based upon the 90 percent confidence interval, the macroeconomic/disruption component of the energy security benefit ranges from $0.94 to $12.23/barrel of biofuel in the year 2022.

TABLE VIII.B.2–1—ENERGY SECURITY BENEFITS OF THE VOLUMES REQUIRED BY RFS2 IN 2022

[2007$ per barrel of biofuel]

Component	Estimate
Monopsony	7.86 (5.37–10.71)
Macroeconomic Disruption	6.56 (0.94–12.23)
Total	14.42 (6.31–22.95)

c. Costs of Existing U.S. Energy Security Policies

Another often-identified component of the full economic costs of U.S. oil imports is the costs to the U.S. taxpayers of existing U.S. energy security policies. The two primary examples are maintaining a military presence to help secure stable oil supply from potentially vulnerable regions of the world and maintaining the SPR to provide buffer supplies and help protect the U.S. economy from the consequences of global oil supply disruptions.

U.S. military costs are excluded from the analysis performed by ORNL because their attribution to particular missions or activities is difficult. Most military forces serve a broad range of security and foreign policy objectives. Attempts to attribute some share of U.S. military costs to oil imports are further challenged by the need to estimate how those costs might vary with incremental variations in U.S. oil imports. In the peer review of the energy security analysis that the Agency commissioned, a majority of peer reviewers believed that U.S. military costs should be excluded absence a widely agreed methodology for estimating this component of U.S. energy security. Similarly, while the costs for building and maintaining the SPR are more clearly related to U.S. oil use and imports, historically these costs have not varied in response to changes in U.S. oil import levels. Thus, while SPR is factored into the ORNL analysis, the cost of maintaining the SPR is excluded.

Some commenters felt that the Agency should attempt to monetize U.S. military costs and include these costs in the energy security analysis, while other commenters agreed with the Agency that these costs should be excluded. The Agency did not receive any new analysis or methodological approach from commenters which could be used to monetize U.S. military costs in a meaningful or credible manner. Since U.S. military impacts are not factored into the energy security analysis, they are also excluded from the lifecycle GHG analysis.

3. Combining Energy Security and Other Benefits

The literature on the energy security for the last two decades has routinely combined the monopsony and the macroeconomic disruption components when calculating the total value of the energy security premium. However, in the context of using a global value for the Social Cost of Carbon (SCC) the question arises: how should the energy security premium be used when some benefits from the increased use of renewable fuels, such as the benefits of reducing greenhouse gas emissions, are calculated at a global level? Monopsony benefits represent avoided payments by the U.S. to oil producers in foreign countries that result from a decrease in the world oil price as the U.S. decreases its consumption of imported oil (net of increased imported biofuel payments by the U.S.). Although there is clearly a benefit to the U.S. when considered from the domestic perspective, the decrease in price due to decreased demand in the U.S. also represents a loss to other countries. Given the redistributive nature of this effect, do the negative effects on other countries "net out" the positive impacts to the U.S.? If this is the case, then, the monopsony portion of the energy security premium should be excluded from the net benefits calculation. Based on this reasoning, EPA's estimates of net benefits for the increased use of renewable fuels required by EISA exclude the portion of energy security benefits stemming from the U.S. exercising its monopsony power in oil markets. Thus, EPA only includes the macroeconomic disruption/adjustment cost portion of the energy security premium.

However, even when the global value for greenhouse gas reduction benefits is used, a strong argument can be made that the monopsony benefits should be included in net benefits calculation. Maintaining the earth's climate is a global public good and as such requires that a global perspective be taken on the benefits of GHG mitigation by all nations, including the U.S. The global SCC is used in these calculations, not because the global net benefits of the increased use of renewable fuels are being computed (they are not), but rather because in the context of a global public good, the global marginal benefit is the correct benefit against which domestic costs are to be compared. In other words, using the global SCC does not transform the calculation from a domestic (i.e., U.S.) to a global one. Rather, the domestic perspective is maintained while recognizing that the impacts from domestic GHG emissions are truly global in nature.

Energy security, on the other hand, is broadly defined as protecting the U.S. economy against circumstances that threaten significant short- and long-term increases in energy costs. Energy security is inherently a domestic benefit. However, the use of the domestic monopsony benefit is not necessarily in conflict with the use of the global SCC, because the global SCC represents the benefits against which

the costs associated with our (i.e., the U.S.'s) domestic mitigation efforts should be judged. In addition, the U.S. values both maintaining the earth's climate and providing for its own energy security. If this reasoning holds, the two benefits—the global benefits of reducing greenhouse gas emissions and the full energy security premium, including the monopsony benefits—should be counted in the net benefits estimates. In the final analysis, the Agency determined that the first argument is more compelling and therefore has determined that using only the macroeconomic disruption component of the energy security benefit is the appropriate metric for this rule.

4. Total Energy Security Benefits

In 2022, total annual energy security benefits are estimated for the difference between the renewable fuel volumes in the Primary Control Case (30.50 billion gallons) and the AEO2007 Reference Case (13.56 billion gallons). Total annual energy security benefits are calculated by multiplying the change in renewable fuel volumes (16.94 billion gallons or 403 million barrels) and the macroeconomic disruption/adjustment portion of the energy security premium ($6.56/barrel of renewable fuels). The estimated total energy security benefit is $2.6 billion (2007$) for the year 2022. The estimated total energy security benefit using the macroeconomic disruption/adjustment portion of the energy security benefit in 2022 ranges from $379 million to $4.9 billion based upon the 90 percent confidence intervals.

C. Benefits of Reducing GHG Emissions

1. Introduction

This section presents estimates of the economic benefits that could be monetized for the reductions in GHG emissions projected to occur through the increased use of renewable fuels required by EISA. The total benefit estimates were calculated by multiplying a marginal dollar value (i.e., cost per ton) of carbon emissions, also referred to as "social cost of carbon" (SCC), by the anticipated level of emissions reductions in tons.

The SCC values underlying the benefits estimates for this rule represent U.S. government-wide interim values for SCC. As discussed below, federal agencies will use these interim values to assess some of the economic benefits of GHG reductions while an interagency workgroup develops SCC values for use in the long-term. The interim values should not be viewed as an expectation about the results of the longer-term process. Although these values were not used in the NPRM, some commenters raised issues with these values and the methodology used to develop them in response to their publication elsewhere. Many of these issues are being examined by the interagency workgroup.

The rest of this Preamble section will provide the basis for the interim SCC values, and the estimates of the total climate-related benefits of the increased use of renewable fuels that follow from these interim values. As discussed below, the interim dollar estimates of the SCC represent a partial accounting of climate change impacts.

In addition to the quantitative account presented in this section, a qualitative appraisal of climate-related impacts is published in Section V of today's rule and in other recent climate change analyses. For example, EPA's Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act and the accompanying Technical Support Document (TSD) presents a summary of impacts and risks of climate change projected in the absence of actions to mitigate GHG emissions.[352] The TSD synthesizes major findings from the best available scientific assessments of the scientific literature that have gone through rigorous and transparent peer review, including the major assessment reports of both the Intergovernmental Panel on Climate Change (IPCC) and the U.S. Climate Change Science Program (CCSP).

2. Derivation of Interim Social Cost of Carbon Values

The "social cost of carbon" (SCC) is intended to be a monetary measure of the incremental damage resulting from carbon dioxide (CO_2) emissions, including (but not limited to) net agricultural productivity loss, human health effects, property damages from sea level rise, and changes in ecosystem services. Any effort to quantify and to monetize the consequences associated with climate change will raise serious questions of science, economics, and ethics. But with full regard for the limits of both quantification and monetization of impacts, the SCC can be used to provide an estimate of the social benefits of reductions in GHG emissions.

For at least three reasons, any particular figure will be contestable. First, scientific and economic knowledge about the impacts of climate change continues to grow. With new and better information about relevant questions, including the cost, burdens, and possibility of adaptation, current estimates will inevitably change over time. Second, some of the likely and potential damages from climate change—for example, the loss of endangered species—are generally not included in current SCC estimates. These omissions may turn out to be significant in the sense that they may mean that the best current estimates are too low. As noted by the IPCC Fourth Assessment Report, "It is *very likely* that globally aggregated figures underestimate the damage costs because they cannot include many non-quantifiable impacts." Third, when economic efficiency criteria, under specific assumptions, are juxtaposed with ethical considerations, the outcome may be controversial. These ethical considerations, including those involving the treatment of future generations, should and will also play a role in judgments about the SCC (*see* in particular the discussion of the discount rate, below).

To date, SCC estimates presented in recent regulatory documents have varied within and among agencies, including DOT, DOE, and EPA. For example, a regulation proposed by DOT in 2008 assumed a value of $7 per metric tonne CO_2 [353] (2006$) for 2011 emission reductions (with a range of $0–14 for sensitivity analysis). One of the regulations proposed by DOE in 2009 used a range of $0–$20 (2007$). Both of these ranges were designed to reflect the value of damages to the United States resulting from carbon emissions, or the "domestic" SCC. In the final MY2011 CAFE EIS, DOT used both a domestic SCC value of $2/t-$CO_2$ and a global SCC value of $33/t-$CO_2$ (with sensitivity analysis at $80/t-$CO_2$) (in 2006 dollars for 2007 emissions), increasing at 2.4% per year thereafter. The final MY2011 CAFE rule also presented a range from $2 to $80/t-$CO_2$.

In the May 2009 proposal leading to today's final rule, EPA identified preliminary SCC estimates that spanned three orders of magnitude. EPA's May

[352] *See* **Federal Register**/Vol. 74, No. 2398/ Wednesday, December 16, 2009/Rules and Regulations at *http://frwebgate4.access.gpo.gov/cgi-bin/PDFgate.cgi?WAISdocID=969788398047+0+2+0&WAISaction=retrieve or http://epa.gov/climatechange/endangerment.html.*

[353] For the purposes of this discussion, we present all values of the SCC as the cost per metric tonne of CO_2 emissions. Some discussions of the SCC in the literature use an alternative presentation of a dollar per metric ton of carbon. The standard adjustment factor is 3.67, which means, for example, that a SCC of $10 per ton of CO_2 would be equivalent to a cost of $36.70 for a ton of carbon emitted. Unless otherwise indicated, a "ton" refers to a metric ton.

2009 proposal also presented preliminary global SCC estimates developed from a survey analysis of the peer reviewed literature (i.e., meta analysis). The global mean values from the meta analysis were $68 and $40/t-$CO_2$ for discount rates of 2% and 3% respectively (in 2006 real dollars for 2007 emissions).[354]

Since publication of the May 2009 proposal, a federal interagency working group has established a methodology for selecting a range of interim SCC estimates for use in regulatory analyses. Today's final rule uses the five values for the SCC that are the outcome of this process. A complete description of the methodology used to generate this interim set of SCC estimates can be found in the RIA for this rule and in multiple other published rules, including a proposal to limit vehicle greenhouse gas emissions that requests public comment on the estimates and underlying methodology.[355]

It should be emphasized that the analysis here is preliminary. These interim estimates are being used for the short-term while an interagency group develops a more comprehensive characterization of the distribution of SCC values for future economic and regulatory analyses. The interim values should not be viewed as an expectation about the results of the longer-term process.

This process will allow the workgroup to explore questions raised in the May 2009 proposal as they are relevant to the development of SCC values for use in the long-term. The workgroup may evaluate factors not currently captured in today's estimates due to time constraints, such as the quantification of additional impact categories where possible and an uncertainty analysis. The Administration will seek comment on all of the scientific, economic, and ethical issues before establishing improved estimates for use in future rulemakings.

The outcomes of the Administration's process to develop interim values are judgments in favor of a) global rather than domestic values, b) an annual growth rate of 3%, and c) interim global SCC estimates for 2007 (in 2007 dollars) of $56, $34, $20, $10, and $5 per metric ton of CO_2. As noted, this is an emphatically interim SCC value. The judgments herein will be subject to further scrutiny and exploration.

3. Application of Interim SCC Estimates to GHG Emissions Reductions

While no single rule or action can independently achieve the deep worldwide emissions reductions necessary to halt and reverse the growth of GHGs, the combined effects of multiple strategies to reduce GHG emissions domestically and abroad could make a major difference in the climate change impacts experienced by future generations.[356] The projected net GHG emissions reductions associated with the increased use of renewable fuels reflect an incremental change to projected total global emissions. Given that the climate response is projected to be a marginal change relative to the baseline climate, we estimate the marginal value of changes in climate change impacts over time and use this value to measure the monetized marginal benefits of the GHG emissions reductions projected for the increased renewable fuel volumes required by EISA.

Accordingly, EPA has used the set of interim, global SCC values described above to estimate the benefits of the increased use of renewable fuels. The interim SCC values for emissions in 2007, which reflect the Administration's interim interpretation of the current literature, are $5, $10, $20, $34, and $56, in 2007 dollars, and are based on a CO_2 emissions change of 1 metric ton in 2007. Table VIII.C.3–1 presents the interim SCC values for both the years 2007 and 2022 in 2007 dollars.

TABLE VIII.C.3–1—INTERIM SCC SCHEDULE (2007$ PER METRIC TONNE OF CO_2)

Year	5%	5% (Newell-Pizer)*	Average SCC from 3% and 5%	3%	3% (Newell-Pizer)*
2007	$5	$10	$20	$34	$56
2022	8	16	30	53	88

Note: The SCC values are dollar-year and emissions-year specific. These values are presented in 2007$, for individual year of emissions. To determine values for other years not presented in the table, use a 3% per year growth rate. SCC values represent only a partial accounting for climate impacts.

* SCC values are adjusted based on Newell and Pizer (2003) to account to future uncertainty in discount rates.

Table VIII.C.3–2 provides, for the low, base, and high cases, the average annual GHG emissions reductions in 2022. The annualized emissions reductions are multiplied by the SCC estimates for 2022 from Table VIII.C.3–1 to produce the average annual monetized benefit from the emissions reductions for CO_2-equivalent GHGs. This is equivalent to taking the time stream of emissions from the increase in renewable fuel volumes, multiplying them by the SCC (which is increasing at a rate of 3 percent per year), and then discounting the stream of benefits by 3 percent.

TABLE VIII.C.3–2—AVERAGE ANNUAL EMISSIONS REDUCTION (MILLION METRIC TONNES CO_2-e) AND MONETIZED BENEFITS (MILLION 2007$) IN 2022

	Low case	Base case	High case
Emissions Reductions	136.104	138.411	140.291
5%	$1,089	$1,107	$1,122
5% (Newell-Pizer)	$2,178	$2,215	$2,245
Average SCC from 3% and 5%	$4,138	$4,208	$4,265
3%	$7,186	$7,308	$7,407

[354] 74 FR 25094 (May 26, 2009).

[355] **Federal Register** 40 CFR Parts 86 and 600, September 28, 2009 "Proposed Rulemaking To Establish Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Proposed Rule".

[356] The Supreme Court recognized in *Massachusetts* v. *EPA* that a single action will not on its own achieve all needed GHG reductions, noting that "[a]gencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop." *See Massachusetts* v. *EPA,* 549 U.S. at 524 (2007).

TABLE VIII.C.3–2—AVERAGE ANNUAL EMISSIONS REDUCTION (MILLION METRIC TONNES CO_2-e) AND MONETIZED BENEFITS (MILLION 2007$) IN 2022—Continued

	Low case	Base case	High case
3% (Newell-Pizer)	$11,976	$12,179	$12,344

Table VIII.C.3–3 provides, for the high, base, and low cases, the monetized benefits from the emissions reductions from the increase in renewable fuel volumes for CO_2-equivalent GHGs in 2022. The SCC estimates for 2022 increase at a rate of 3 percent per year, and are then multiplied by the stream of emissions for each respective year for 30 years. The monetized benefits in table VIII.C.3–3 represent the net present value of these emissions for 30 years using a discount rate of 7 percent.

TABLE VIII.C.3–3—MONETIZED BENEFITS (MILLION 2007$) OF RFS–2 VOLUMES IN 2022 USING A 7% DISCOUNT RATE

	High	Base	Low
5%	$606	$620	$631
5% (Newell-Pizer)	1,212	1,239	1,262
Average SCC from 3% and 5%	2,302	2,355	2,397
3%	3,999	4,089	4,163
3% (Newell-Pizer)	6,665	6,816	6,939

D. Criteria Pollutant Health and Environmental Impacts

1. Overview

This section describes EPA's analysis of the co-pollutant health and environmental impacts that can be expected to occur as a result of the increase in renewable fuel use throughout the period from initial implementation of the RFS2 rule through 2022. Although the purpose of this final rule is to implement the renewable fuel requirements established by the Energy Independence and Security Act (EISA) of 2007, the increased use of renewable fuels will also impact emissions of criteria and air toxic pollutants and their resultant ambient concentrations. The fuels changes detailed in Section 3.1 of the RIA will influence emissions of VOCs, PM, NO_X, and SO_X and air toxics and affect exhaust and evaporative emissions of these pollutants from vehicles and equipment. They will also affect emissions from upstream sources such as fuel production, storage, distribution and agricultural emissions. Any decrease or increase in ambient ozone, $PM_{2.5}$, and air toxics associated with the increased use of renewable fuels will impact human health in the form of a decrease or increase in the risk of incurring premature death and other serious human health effects, as well as other important public health and welfare effects.

This analysis reflects the impact of the 2022 mandated renewable fuel volumes (the "RFS2 control case") compared with two different reference scenarios that include the use of renewable fuels: a 2022 baseline projection based on the RFS1-mandated volume of 7.1 billion gallons of renewable fuels, and a 2022 baseline projection based on the AEO 2007 volume of roughly 13.6 billion gallons of renewable fuels.[357] Thus, the results represent the impact of an incremental increase in ethanol and other renewable fuels. We note that the air quality modeling results presented in this final rule do not constitute the "anti-backsliding" analysis required by Clean Air Act section 211(v). EPA will be analyzing air quality and health impacts of increased renewable fuel use through that study and will promulgate appropriate mitigation measures under section 211(v), separate from this final action.

As can be seen in Section VI.D of this preamble, as well as in Section 3.4 of the RIA that accompanies this preamble, there are both increased and decreased concentrations of ambient criteria pollutants and air toxics. Overall, we estimate that the required renewable fuel volumes will lead to a net increase in criteria pollutant-related health impacts. By 2022, the final RFS2 volumes relative to both reference case scenarios (RFS1 and AEO2007), are projected to adversely impact $PM_{2.5}$ air quality over parts of the U.S., while some areas will experience decreases in ambient $PM_{2.5}$. As described in Section VI, ambient $PM_{2.5}$ is likely to increase as a result of emissions at biofuel production plants and from biofuel transport, both of which are more prevalent in the Midwest. PM concentrations are also likely to decrease in some areas. While the PM-related air quality impacts are relatively small, the increase in population-weighted national average $PM_{2.5}$ exposure results in a net increase in adverse PM-related human health impacts. (the increase in national population weighted annual average $PM_{2.5}$ is 0.006 μg/m3 and 0.002 μg/m3 relative to the RFS1 and AEO2007 reference cases, respectively).

The required renewable fuel volumes, relative to both reference scenarios, are also projected to adversely impact ozone air quality over much of the U.S., especially in the Midwest, Northeast and Southeast. These adverse impacts are likely due to increased upstream emissions of NO_X in many areas that are NO_X-limited (acting as a precursor to ozone formation). There are, however, ozone air quality improvements in some highly-populated areas that currently have poor air quality. This is likely due to VOC emission reductions at the tailpipe in urban areas that are VOC-limited (reducing VOC's role as a precursor to ozone formation). Relative to the RFS1 mandate reference case, the RFS2 volumes result in an increase in national ozone-related health impacts (population weighted maximum 8-hour average ozone increases by 0.177 ppb). Relative to the AEO2007 reference case, the RFS2 volumes result in an increase in national ozone-related health impacts

[357] The 2022 modeled scenarios assume the following: RFS1 reference case assumes 6.7 Bgal/yr ethanol and 0.38 Bgal/yr biodiesel; AEO2007 reference case assumes 13.18 Bgal/yr ethanol and 0.38 Bgal/yr biodiesel; RFS2 control case assumes 34.14 Bgal/yr ethanol, 0.81 Bgal/yr biodiesel, and 0.38 Bgal/yr renewable diesel. Please refer to Chapter 3.3 and Table 3.3–1 for more information about the renewable fuel volumes assumed in the modeled analyses and the corresponding emissions inventories.

(population weighted maximum 8-hour average ozone increases by 0.116 ppb).

The analysis of national-level $PM_{2.5}$- and ozone-related health and environmental impacts associated with the required renewable fuel volumes is based on peer-reviewed studies of air quality and human health effects (*see* US EPA, 2006 and US EPA, 2008).[358] [359] We are also consistent with the benefits analysis methods that supported the recently proposed Portland Cement National Emissions Standards for Hazardous Air Pollutants (NESHAP) RIA (U.S. EPA, 2009a),[360] the proposed NO_2 primary NAAQS RIA (U.S. EPA, 2009b),[361] and the proposed Category 3 Marine Diesel Engines RIA (U.S. EPA, 2009c).[362] These methods are described in more detail in the RIA that accompanies this preamble. To model the ozone and PM air quality impacts of the required renewable fuel volumes, we used the Community Multiscale Air Quality (CMAQ) model (*see* Section VI.D). The modeled ambient air quality data serves as an input to the Environmental Benefits Mapping and Analysis Program (BenMAP).[363] BenMAP is a computer program developed by the U.S. EPA that integrates a number of the modeling elements used in previous 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 range of total national-level ozone- and PM-related monetized impacts associated with the required renewable fuel volumes is presented in Table VIII.D.1–1.[364] We present total monetized impacts based on the PM- and ozone-related premature mortality function used. Total monetized impacts therefore reflect the addition of each estimate of ozone-related premature mortality (each with its own row in Table VIII.D.1–1) to estimates of PM-related premature mortality. These estimates represent EPA's preferred approach to characterizing the best estimate of monetized impacts associated with the required renewable fuel volumes.

Emissions and air quality modeling decisions were made early in the analytical process and as a result, there are a number of important limitations and uncertainties associated with the air quality modeling analysis that must be kept in mind when considering the results. A key limitation of the analysis is that it employed interim emission inventories, which were enhanced compared to what was described in the proposal, but did not include some of the later enhancements and corrections of the final emission inventories presented in this FRM (*see* Section VI.A through VI.C of this preamble). Most significantly, our modeling of the air quality impacts of RFS2 relied upon interim inventories that assumed that ethanol will make up 34 of the 36 billion gallon renewable fuel mandate, that approximately 20 billion gallons of this ethanol will be in the form of E85, and that the use of E85 results in fewer emissions of direct $PM_{2.5}$ from vehicles. The emission impacts, air quality results and benefits analysis would be different if, instead of E85, more non-ethanol biofuels are used or mid-level ethanol blends are approved and utilized.

In fact, as explained earlier in this preamble, our more recent analyses indicate that ethanol and E85 volumes are likely to be significantly lower than what we assumed in the interim inventories. Furthermore, the final emission inventories do not include vehicle-related PM reductions associated with E85 use, as discussed in Section VI.A through VI.C. There are additional, important limitations and uncertainties associated with the interim inventories that must be kept in mind when considering the results, which are described in more detail in Section VI. While it is difficult to describe the overall impact of these limitations and uncertainties on the quantified and monetized health impacts of the increased renewable fuel volumes without updating the air quality modeling analysis, we believe the results are still useful for describing potential national-level health impacts.

Additionally, after the air quality modeling was completed, we discovered an error in the way that $PM_{2.5}$ emissions from locomotive engines were allocated to counties in the inventory. The mismatched allocations between the reference and control scenarios resulted in $PM_{2.5}$ emission changes that were too high in some counties and too low in others, by varying degrees. As a result, we did not present the modeling results for specific localized $PM_{2.5}$ impacts in Section VI.D. However, because the error was random and offsetting, there was very little impact on national-level $PM_{2.5}$ emissions. An analysis of the error's impact on the national emission inventories found that direct $PM_{2.5}$ emissions were inflated by 8% relative to the AEO reference case and by 0.6% relative to the RFS1 reference case, leading to a small overestimation of national PM-related adverse health impacts. Note that this error did not impact other PM precursor inventories such as NO_X and SO_2. As a result, we have concluded that $PM_{2.5}$ modeling results are still informative for national-level benefits assessment, particularly given that other uncertainties in the $PM_{2.5}$ inventory (such as E85 usage, discussed below) have a more important (and offsetting) effect.

[358] U.S. Environmental Protection Agency. (2006). *Final Regulatory Impact Analysis (RIA) for the Proposed National Ambient Air Quality Standards for Particulate Matter.* Prepared by: Office of Air and Radiation. Retrieved March, 26, 2009 at *http://www.epa.gov/ttn/ecas/ria.html.*

[359] U.S. Environmental Protection Agency. (2008). *Final Ozone NAAQS Regulatory Impact Analysis.* Prepared by: Office of Air and Radiation, Office of Air Quality Planning and Standards. Retrieved March, 26, 2009 at *http://www.epa.gov/ttn/ecas/ria.html.*

[360] U.S. Environmental Protection Agency (U.S. EPA). 2009a. Regulatory Impact Analysis: National Emission Standards for Hazardous Air Pollutants from the Portland Cement Manufacturing Industry. Office of Air Quality Planning and Standards, Research Triangle Park, NC. April. Available on the Internet at *http://www.epa.gov/ttn/ecas/regdata/RIAs/portlandcementria_4–20–09.pdf.*

[361] U.S. Environmental Protection Agency (U.S. EPA). 2009b. Proposed NO2 NAAQS Regulatory Impact Analysis (RIA). Office of Air Quality Planning and Standards, Research Triangle Park, NC. April. Available on the Internet at *http://www.epa.gov/ttn/ecas/regdata/RIAs/proposedno2ria.pdf.* **Note:** The revised NO2 NAAQS may be final by the publication of this action.

[362] U.S. Environmnetal Protection Agency (U.S. EPA). 2009c. Draft Regulatory Impact Analysis: Control of Emissions of Air Pollution from Category 3 Marine Diesel Engines. Office of Transportation and Air Quality, June. Available on the Internet at *http://www.epa.gov/otaq/regs/nonroad/420d09002.htm.* **Note:** The C3 rule may be final by the publication of this action.

[363] Information on BenMAP, including downloads of the software, can be found at *http://www.epa.gov/ttn/ecas/benmodels.html.*

[364] Note that these impacts reflect the national total of PM-related benefits and disbenefits and ozone-related benefits and disbenefits. The sum of total of benefits and disbenefits yields a net negative benefit, or disbenefit. *See* Tables VIII.D.2–1 and VIII.D.2–2 for pollutant- and endpoint-specific incidence estimates and Table VIII.D.3–1 for pollutant- and endpoint specific monetized values.

TABLE VIII.D.1–1—ESTIMATED 2022 MONETIZED PM- AND OZONE-RELATED HEALTH IMPACTS FROM THE MANDATED RENEWABLE FUEL VOLUMES [a]

Premature ozone mortality function	Reference	Total benefits (billions, 2007$, 3% discount rate) [b,c]	Total benefits (billions, 2007$, 7% discount rate) [b,c]
2022 Total Ozone and PM Benefits, RFS2 Control Case Compared to RFS1 Reference Case [a]			
Multi-city analyses	Bell *et al.,* 2004	Total: −$1.4 to −$2.8	Total: −$1.4 to −$2.6.
		PM: −$0.92 to −$2.3	PM: −$0.84 to −$2.0.
		Ozone: −$0.52	Ozone: −$0.52.
	Huang *et al.,* 2005	Total: −$1.8 to −$3.1	Total: −$1.7 to −$2.9.
		PM: −$0.92 to −$2.3	PM: −$0.84 to −$2.0.
		Ozone: −$0.83	Ozone: −$0.83.
	Schwartz, 2005	Total: −$1.7 to −$3.0	Total: −$1.6 to −$2.8.
		PM: −$0.92 to −$2.3	PM: −$0.84 to −$2.0.
		Ozone: −$0.77	Ozone: −$0.77.
Meta-analyses	Bell *et al.,* 2005	Total: −$2.5 to −$3.8	Total: −$2.4 to −$3.6.
		PM: −$0.92 to −$2.3	PM: −$0.84 to −$2.0.
		Ozone: −$1.6	Ozone: −$1.6.
	Ito *et al.,* 2005	Total: −$3.1 to −$4.5	Total: −$3.0 to −$4.2.
		PM: −$0.92 to −$2.3	PM: −$0.84 to −$2.0.
		Ozone: −$2.2	Ozone: −$2.2.
	Levy *et al.,* 2005	Total: −$3.1 to −$4.5	Total: −$3.1 to −$4.3.
		PM: −$0.92 to −$2.3	PM: −$0.84 to −$2.0.
		Ozone: −$2.2	Ozone: −$2.2.
2022 Total Ozone and PM Benefits, RFS2 Control Case Compared to AEO Reference Case [a]			
Multi-city analyses	Bell *et al.,* 2004	Total: −$0.63 to −$1.0	Total: −$0.60 to −$0.98.
		PM: −$0.29 to −$0.70	PM: −$0.26 to −$0.63.
		Ozone: −$0.34	Ozone: −$0.34.
	Huang *et al.,* 2005	Total: −$0.84 to −$1.3	Total: −$0.81 to −$1.2.
		PM: −$0.29 to −$0.70	PM: −$0.26 to −$0.63.
		Ozone: −$0.55	Ozone: −$0.55.
	Schwartz, 2005	Total: −$0.80 to −$1.2	Total: −$0.77 to −$1.1.
		PM: −$0.29 to −$0.70	PM: −$0.26 to −$0.63.
		Ozone: −$0.51	Ozone: −$0.51.
Meta-analyses	Bell *et al.,* 2005	Total: −$1.3 to −$1.8	Total: −$1.3 to −$1.7.
		PM: −$0.29 to −$0.70	PM: −$0.26 to −$0.63.
		Ozone: −$1.0	Ozone: −$1.0.
	Ito *et al.,* 2005	Total: −$1.7 to −$2.2	Total: −$1.7 to −$2.1.
		PM: −$0.29 to −$0.70	PM: −$0.26 to −$0.63.
		Ozone: −$1.5	Ozone: −$1.5.
	Levy *et al.,* 2005	Total: −$1.8 to −$2.2	Total: −$1.7 to −$2.1.
		PM: −$0.29 to −$0.70	PM: −$0.26 to −$0.63.
		Ozone: −$1.5	Ozone: −$1.5.

Notes:

[a] Total includes premature mortality-related and morbidity-related 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 either the ACS study (Pope et al., 2002) or the Six-Cities study (Laden et al., 2006).

[b] 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 VIII.D.1–2.

[c] 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.

The monetized estimates in Table VIII.D.1–1 include all of the human health impacts we are able to quantify and monetize at this time. However, the full complement of human health and welfare effects associated with PM and ozone remain unquantified because of current limitations in methods or available data. We have not quantified a number of known or suspected health effects linked with ozone and PM for which appropriate health impact functions are not available or which do not provide easily interpretable outcomes (i.e., changes in heart rate variability). Additionally, we are unable to quantify a number of known welfare effects, including acid and particulate deposition damage to cultural monuments and other materials, and environmental impacts of eutrophication in coastal areas. These are listed in Table VIII.D.1–2.

TABLE VIII.D.1–2—UNQUANTIFIED AND NON-MONETIZED POTENTIAL EFFECTS FROM THE MANDATED RENEWABLE FUEL VOLUMES

Pollutant/effects	Effects not included in analysis—changes in:
Ozone Health[a]	Chronic respiratory damage[b].

TABLE VIII.D.1–2—UNQUANTIFIED AND NON-MONETIZED POTENTIAL EFFECTS FROM THE MANDATED RENEWABLE FUEL VOLUMES—Continued

Pollutant/effects	Effects not included in analysis—changes in:
	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.
	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 adverse health impacts.

[f] Many of the key hydrocarbons related to this rule are also hazardous air pollutants listed in the Clean Air Act.

While there will be impacts associated with air toxic pollutant emission changes that result from the increased use of renewable fuels, we do not attempt to monetize those impacts. This is primarily because currently available tools and methods to assess air toxics risk from mobile sources at the national scale are not adequate for extrapolation to incidence estimations or benefits assessment. The best suite of tools and methods currently available for assessment at the national scale are those used in the National-Scale Air Toxics Assessment (NATA). The EPA Science Advisory Board specifically commented in their review of the 1996 NATA that these tools were not yet

ready for use in a national-scale benefits analysis, because they did not consider the full distribution of exposure and risk, or address sub-chronic health effects.[365] While EPA has since improved the tools, there remain critical limitations for estimating incidence and assessing benefits of reducing mobile source air toxics. EPA continues to work to address these limitations; however, we did not have the methods and tools available for national-scale application in time for the analysis of the final rule.[366]

2. Quantified Human Health Impacts

Tables VIII.D.2–1 and VIII.D.2–2 present the annual $PM_{2.5}$ and ozone health impacts in the 48 contiguous U.S. states associated with the required renewable fuel volumes relative to both the RFS1 and AEO reference cases for 2022. For each endpoint presented in Tables VIII.D.2–1 and VIII.D.2–2, we provide both the mean estimate and the 90% confidence interval.

Using EPA's preferred estimates, based on the ACS and Six-Cities studies and no threshold assumption in the model of mortality, we estimate that the required renewable fuel volumes will result in between 110 and 270 cases of $PM_{2.5}$-related premature deaths annually in 2022 when compared to the RFS1 reference case. When compared to the AEO reference scenario, we estimate that the required renewable fuel volumes will result in between 33 and 85 cases of $PM_{2.5}$-related premature deaths annually in 2022. For ozone-related premature mortality, we estimate that national changes in ambient ozone will contribute to between 54 to 250 additional premature mortalities in 2022 as a result of the required renewable fuel volumes relative to the RFS1 scenario. When compared to the AEO reference scenario, we estimate that the required renewable fuel volumes will contribute to between 36 to 160 additional ozone-related premature mortalities in 2022.

TABLE VIII.D.2–1—ESTIMATED $PM_{2.5}$-RELATED HEALTH IMPACTS ASSOCIATED WITH THE MANDATED RENEWABLE FUEL VOLUMES [a]

Health effect	2022 RFS2 Control case compared to RFS1 reference case (5th%–95th%ile)	2022 RFS2 Control case compared to AEO reference case (5th%–95th%ile)
Premature Mortality—Derived from Epidemiology Literature [b]		
Adult, age 30+, ACS Cohort Study (Pope et al., 2002)	−110 (−42 – −170)	−33 (−13 – −53)
Adult, age 25+, Six-Cities Study (Laden et al., 2006)	−270 (−150 – −400)	−85 (−46 – −120)
Infant, age <1 year (Woodruff et al., 1997)	0 (0 – −1)	0 (0 – −1)
Chronic bronchitis (adult, age 26 and over)	−65 (−26 – −110)	−19 (−4 – −18)
Non-fatal myocardial infarction (adult, age 18 and over)	−180 (−65 – −290)	−51 (−19 – −84)
Hospital admissions—respiratory (all ages) [c]	−26 (−25 – −26)	−7 (−5 – −8)
Hospital admissions—cardiovascular (adults, age >18) [d]	−55 (−44 – −70)	−12 (−9 – −16)
Emergency room visits for asthma (age 18 years and younger)	−180 (−110 – −260)	−99 (−58 – −140)
Acute bronchitis, (children, age 8–12)	−160 (−0 – −330)	−50 (−0 – −100)
Lower respiratory symptoms (children, age 7–14)	−1,900 (−910 – −2,900)	−600 (−290 – −910)
Upper respiratory symptoms (asthmatic children, age 9–18)	−1,400 (−450 – −2,400)	−450 (−140 – −750)
Asthma exacerbation (asthmatic children, age 6–18)	−1,700 (−190 – −4,800)	−540 (−60 – −1,500)
Work loss days	−11,000 (−10,000 – −13,000)	−3,200 (−2,800 – −3,700)
Minor restricted activity days (adults age 18–65)	−68,000 (−57,000 – −78,000)	−19,000 (−16,000 – −22.000)

Notes:

[a] Note that negative incidence expressed in this table reflects disbenefits; in other words, an increase in total aggregated national-level PM-related health impacts. Incidence is rounded to two significant digits. Estimates represent incidence within the 48 contiguous United States.

[b] PM-related adult mortality based upon the American Cancer Society (ACS) Cohort Study (Pope *et al.,* 2002) and the Six-Cities Study (Laden *et al.,* 2006). Note that these are two alternative estimates of adult mortality and should not be summed. PM-related infant mortality based upon a study by Woodruff, Grillo, and Schoendorf, (1997).[367]

[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.

[365] Science Advisory Board. 2001. NATA—Evaluating the National-Scale Air Toxics Assessment for 1996—an SAB Advisory. *http://www.epa.gov/ttn/atw/sab/sabrev.html.*

[366] In April, 2009, EPA hosted a workshop on estimating the benefits or reducing hazardous air pollutants. This workshop built upon the work accomplished in the June 2000 Science Advisory Board/EPA Workshop on the Benefits of Reductions in Exposure to Hazardous Air Pollutants, which generated thoughtful discussion on approaches to estimating human health benefits from reductions in air toxics exposure, but no consensus was reached on methods that could be implemented in the near term for a broad selection of air toxics. Please visit *http://epa.gov/air/toxicair/2009 workshop.html* for more information about the workshop and its associated materials.

[367] Woodruff, T.J., J. Grillo, and K.C. Schoendorf. 1997. "The Relationship Between Selected Causes of Postneonatal Infant Mortality and Particulate Air Pollution in the United States." *Environmental Health Perspectives* 105(6): 608–612.

TABLE VIII.D.2–2—ESTIMATED OZONE-RELATED HEALTH IMPACTS ASSOCIATED WITH THE MANDATED RENEWABLE FUEL VOLUMES [a]

Health effect	2022 RFS2 Control case compared to RFS1 reference case (5th%–95th%ile)	2022 RFS2 Control case compared to AEO reference case (5th%–95th%ile)
Premature Mortality, All ages [b]		
Multi-City Analyses		
Bell *et al.* (2004)—Non-accidental	−54	−36
	(−17 – −92)	(−10 – −62)
Huang et al. (2005)—Cardiopulmonary	−90	−59
	(−31 – −149)	(−18 – −100)
Schwartz (2005)—Non-accidental	−83	−55
	(−24 – −140)	(−13 – −97)
Meta-analyses:		
Bell *et al.* (2005)—All cause	−180	−120
	(−80 – −270)	(−49 – −180)
Ito *et al.* (2005)—Non-accidental	−240	−160
	(−140 – −350)	(−90 – −230)
Levy *et al.* (2005)—All cause	−250	−160
	(−170 – −330)	(−110 – −220)
Hospital admissions—respiratory causes (adult, 65 and older) [c]	−470	−310
	(−20 – −860)	(−5 – −580)
Hospital admissions—respiratory causes (children, under 2)	−83	−190
	(−24 – −140)	(−52 – −330)
Emergency room visit for asthma (all ages)	−260	−180
	(0 – −740)	(0 – −510)
Minor restricted activity days (adults, age 18–65)	−300,000	−200,000
	(−110,000 – −500,000)	(−59,000 – −340,000)
School absence days	−110,000	−75,000
	(−35,000 – −180,000)	(−19,000 – −120,000)

Notes:

[a] Note that negative incidence expressed in this table reflects disbenefits; in other words, an increase in total aggregated national-level ozone-related health impacts. Incidence is rounded to two significant digits. Estimates represent incidence within the 48 contiguous United States. Note that negative incidence estimates represent additional cases of an endpoint related to pollution increases associated with the increased use of renewable fuels.

[b] Estimates of ozone-related premature mortality are based upon incidence estimates derived from several alternative studies: Bell *et al.* (2004); Huang *et al.* (2005); Schwartz (2005) ; Bell *et al.* (2005); Ito *et al.* (2005); Levy *et al.* (2005). The estimates of ozone-related premature mortality should therefore not be summed.

[c] Respiratory hospital admissions for ozone include admissions for all respiratory causes and subcategories for COPD and pneumonia.

3. Monetized Impacts

Table VIII.D.3–1 presents the estimated monetary value of the increase in ozone and $PM_{2.5}$-related health effects incidence associated with the required renewable fuel volumes relative to both the RFS1 and AEO reference cases for 2022. All monetized estimates are stated in 2007$. These estimates account for growth in real gross domestic product (GDP) per capita between the present and the year 2022. As the table indicates, total adverse health impacts are driven primarily by the increase in $PM_{2.5}$- and ozone-related premature fatalities.

Our estimate of monetized adverse health impacts in 2022 for the required renewable fuel volumes relative to the RFS1 reference case, using the ACS and Six-Cities PM mortality studies and the range of ozone mortality assumptions, are between $1.4 billion and $4.5 billion, assuming a 3 percent discount rate, or between $1.4 billion and $4.3 billion, assuming a 7 percent discount rate. The total monetized adverse health impacts in 2022 for the required renewable fuel volumes relative to the AEO reference case are between $0.63 billion and $2.2 billion assuming a 3 percent discount rate, and between $0.60 billion and $2.1 billion assuming a 7 percent discount rate. We are unable to quantify a number of health and environmental impact categories (*see* Table VIII.D.1–2). These unquantified impacts may be substantial, although their magnitude is highly uncertain.

TABLE VIII.D.3–1—ESTIMATED MONETARY VALUE OF HEALTH AND WELFARE EFFECT INCIDENCE

[In millions of 2007$] [a b]

	2022 RFS2 Control case compared to RFS1 reference case	2022 RFS2 Control case compared to AEO reference case
$PM_{2.5}$-Related Health Effect	Estimated Mean Value of Reductions (5th and 95th %ile)	
Premature Mortality—Derived from Epidemiology Studies [c d]		
Adult, age 30+—ACS study (Pope *et al.,* 2002):		
3% discount rate	−$860	−$270
	(−$100 – −$2,300)	(−$32 – −$700)
7% discount rate	−$770	−$240
	(−$91 – −$2,000)	(−$28 – −$630)

TABLE VIII.D.3–1—ESTIMATED MONETARY VALUE OF HEALTH AND WELFARE EFFECT INCIDENCE—Continued

[In millions of 2007$] [a] [b]

	2022 RFS2 Control case compared to RFS1 reference case	2022 RFS2 Control case compared to AEO reference case
Adult, age 25+—Six-cities study (Laden *et al.,* 2006):		
3% discount rate	−$2,200	−$680
	(−$29−−$5,500)	(−$90−−$1,700)
7% discount rate	−$2,000	−$620
	(−$26−−$5,000)	(−$81−−$1,600)
Infant Mortality, <1 year—(Woodruff *et al.* 1997)	−$4.0	−$1.7
	(−$3.0−−$15)	(−$1.3−−$6.7)
Chronic bronchitis (adults, 26 and over)	−$32	−$9.4
	(−$2.5−−$110)	(−$0.72−−$33)
Non-fatal acute myocardial infarctions:		
3% discount rate	−$23	−$6.6
	(−$4.1−−$58)	(−$1.0−−$17)
7% discount rate	−$23	−$6.4
	(−$3.8−−$58)	(−$0.95−−$16)
Hospital admissions for respiratory causes	−$0.39	−$0.11
	(−$0.19−−$0.57	(−$0.06−−$0.17)
Hospital admissions for cardiovascular causes	−$1.5	−$0.33
	(−$0.96−−$2.1)	(−$0.20−−$0.45)
Emergency room visits for asthma	−$0.07	−$0.04
	(−$0.04−−$0.10)	(−$0.02−−$0.06)
Acute bronchitis (children, age 8–12)	−$0.01	−$0.004
	($0−−$0.03)	($0−−$0.01)
Lower respiratory symptoms (children, 7–14)	−$0.04	−$0.01
	(−$0.01−−$0.07)	(−$0.004−−$0.02)
Upper respiratory symptoms (asthma, 9–11)	−$0.04	−$0.01
	(−$0.01−−$0.10)	(−$0.004−−$0.03)
Asthma exacerbations	−$0.09	−$0.03
	(−$0.009−−$0.28)	(−$0.003−−$0.09)
Work loss days	−$1.7	−$0.49
	(−$1.5−−$1.9)	(−$0.42−−$0.55)
Minor restricted−activity days (MRADs)	−$4.3	−$1.2
	(−$2.5−−$6.2)	(−$0.69−−$1.7)
Ozone-related Health Effect		
Premature Mortality, All ages—Derived from Multi-city analyses:		
Bell *et al.,* 2004	$480	−$320
	(−$51−−$1,300)	(−$32−−$880)
Huang *et al.,* 2005	−$800	−$530
	(−$90−−$2,200)	(−$56−−$1,400)
Schwartz, 2005	−$740	−$490
	(−$76−−$2,000)	(−$48−−$1,300)
Premature Mortality, All ages—Derived from Meta-analyses:		
Bell *et al.,* 2005	−$1,600	−$1,000
	(−$200−−$4,000)	(−$130−−$,700)
Ito *et al.,* 2005	−$2,200	−$1,400
	(−$290−−$5,400)	(−$190−−$3,600)
Levy *et al.,* 2005	−$2,200	−$1,400
	(−$300−−$5,300)	(−$200−−$3,500)
Hospital admissions—respiratory causes (adult, 65 and older)	−$11	−$7.4
	(−$0.49−−$20)	(−$0.13−−$14)
Hospital admissions—respiratory causes (children, under 2)	−$3.0	−$1.9
	(−$1.0−−$4,9)	(−$0.52−−$3.3)
Emergency room visit for asthma (all ages)	−$0.10	−$0.07
	(−$0.009−−$0.26)	(−$0.008−−$0.18)
Minor restricted activity days (adults, age 18–65)	−$19	−$13
	(−$6.4−−$35)	(−$3.6−−$24)
School absence days	−$10	−$6.7
	(−$3.1−−$16)	(−$1.7−−$11)

Notes:

[a] Negatives indicate a disbenefit, or an increase in health effect incidence. Monetary impacts are rounded to two significant digits for ease of presentation and computation. PM and ozone impacts are nationwide.

[b] Monetary impacts adjusted to account for growth in real GDP per capita between 1990 and the analysis year (2022).

[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.

4. *What Are the Limitations of the Health Impacts 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 premature mortality associated with 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 coordinated strategy 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 VIII.D.3–1 indicates, total impacts are driven primarily by the additional premature mortalities estimated to occur 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 PM NAAQS RIA.
- All fine particles, regardless of their chemical composition, are equally potent in causing premature mortality. This is an important assumption, because PM related to fuel use in mobile sources 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. 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 uncertainty in the magnitude of the association between ozone and premature mortality. The range of ozone impacts associated with the increased use of renewable fuels is estimated based on the risk of several sources of ozone-related mortality effect estimates. In a recent report on the estimation of ozone-related premature mortality published by the National Research Council, a panel of experts and reviewers concluded that short-term exposure to ambient ozone is likely to contribute to premature deaths and that ozone-related mortality should be included in estimates of the health impacts of reducing ozone exposure.[368] 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 health impacts.

Acknowledging the omission of a range of health and environmental impacts, and the uncertainties mentioned above, we present a best estimate of the total monetized impacts 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) has also reviewed EPA's methodology for analyzing air pollution-related health and environmental impacts. EPA addressed many of these comments in the analysis of the final PM NAAQS.[369] [370] This analysis incorporates this most recent work to the extent possible.

E. Summary of Costs and Benefits

Presented in this section are a summary of costs, benefits, and net benefits of the renewable fuel volumes required by final RFS2 program. Table VIII.E–1 shows the estimated annual societal costs and benefits of the increased use of renewable fuels in 2022. The table also presents estimated annual net benefits for 2022. In this table, fuel savings are presented as negative costs associated with the increased use of renewable fuels (rather than positive savings). Note that all costs and benefits are presented in annual terms; we were unable to estimate a stream of costs and benefits for many of the cost-benefit categories and were therefore unable to estimate net present value.

Table VIII.E–1 presents the benefits of reduced GHG emissions—and consequently the annual quantified benefits (*i.e.,* total benefits) and quantified net benefits—for each of five interim SCC values considered by EPA. As discussed in Section VIII.C, there is a very high probability (very likely according to the IPCC) that the benefit estimates from GHG reductions are underestimates because, in part, models used to calculate SCC values do not include information about impacts that have not been quantified.

TABLE VIII.E–1—QUANTIFIED COSTS AND BENEFITS OF THE VOLUMES REQUIRED BY RFS2 RELATIVE TO THE AEO REFERENCE CASE IN 2022

[Billions of 2007 dollars] [371]

	2022
Quantified Annual Costs	
Overall Fuel Cost [a]	−$11.8.
Quantified Annual Benefits	
Reduced GHG Emissions (by SCC): *SCC 5%*	$0.6 to $1.1.

[368] National Research Council (NRC), 2008. Estimating Mortality Risk Reduction and Economic Benefits from Controlling Ozone Air Pollution. The National Academies Press: Washington, DC.

[369] National Research Council (NRC). 2002. Estimating the Public Health Benefits of Proposed Air Pollution Regulations. The National Academies Press: Washington, DC.

[370] 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.*

TABLE VIII.E–1—QUANTIFIED COSTS AND BENEFITS OF THE VOLUMES REQUIRED BY RFS2 RELATIVE TO THE AEO REFERENCE CASE IN 2022—Continued

[Billions of 2007 dollars] [371]

	2022
SCC 5% Newell-Pizer	$1.2 to $2.2.
SCC from 3% and 5%	$2.4 to $4.2.
SCC 3%	$4.1 to $7.3.
SCC 3% Newell-Pizer	$6.8 to $12.2.
$PM_{2.5}$- and Ozone-Related Benefits [b, c].	−$0.63 to −$2.2.
Energy Security Impacts	$2.6.
Total Benefits (by SCC):	
SCC 5%	$1 to $3.1.
SCC 5% Newell-Pizer	$1.6 to $4.2.
SCC from 3% and 5%	$2.8 to $6.2.
SCC 3%	$4.5 to $9.3.
SCC 3% Newell-Pizer	$7.2 to $14.2.
Quantified Net Benefits	
Net Benefits (by SCC):	
SCC 5%	$13 to $15.
SCC 5% Newell-Pizer	$13 to $16.
SCC from 3% and 5%	$15 to $18.
SCC 3%	$16 to $21.
SCC 3% Newell-Pizer	$19 to $26.

[a] Negative costs represent fuel savings from decreased gasoline and diesel consumption.

[b] Negative benefits indicate a disbenefit, or an increase in monetized health impacts. Total includes premature mortality-related and morbidity-related ozone and $PM_{2.5}$ impacts. 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 either the ACS study (Pope *et al.,* 2002) or the Six-Cities study (Laden *et al.,* 2006).

[c] The $PM_{2.5}$-related impacts presented in this table assume a 3% discount rate in the valuation of premature mortality to account for a twenty-year segmented cessation lag. If a 7% discount rate had been used, the values would be approximately 9% lower.

IX. Impacts on Water

A. Background

As the production of biofuels increases as required by this rule, there may be adverse impacts on both water quality and water quantity affecting drinking water sources and ecological habitats. The impacts could come from several different pathways: Growing crops for the biofuel feedstock as well as production, storage, and distribution of the biofuels. Increased production of biofuel crops may lead to changes in the management of cropland and the use of fertilizer and pesticides that could lead to greater loadings of nutrients, pesticides, and sediment to our water resources. While there are methods to minimize and mitigate the effects on water resources, there is still a potential to impact both human health and the environment. Since both the irrigation of corn and ethanol production use large quantities of water, the supply of water could also be significantly affected in some locations.

1. Agriculture and Water Quality

There are three major pathways for contaminants to reach water from agricultural lands: Run off from the land's surface, man-made ditches or subsurface tile drains, and leaching to ground water. Many factors influence the potential for contaminants such as fertilizers, sediment, and pesticides to reach water from agricultural lands, including: Soil type, slope, climate, crop type, and management. Management of agricultural lands can take many forms, but key factors include nutrient and pesticide application rates and application methods, tillage, use of conservation practices and crop rotations by farmers, and acreage and intensity of artificially drained lands.

To examine the potential water-related impacts of growing crops for biofuels, EPA focused its analysis on corn production for several reasons. First, corn acres have increased dramatically, 20% from 2006 to 2007. Although corn acres have since declined somewhat, total corn acres in 2009 remained the second highest since 1946.[372] Second, corn kernels are currently the predominant and most economically viable feedstock for significant ethanol production. In addition, corn stover (stalks, leaves) will likely be the predominant feedstock for cellulosic ethanol production in the Upper Mississippi River Basin where we modeled water quality impacts. And third, corn production can contribute significantly to water pollution. Corn has the highest fertilizer and pesticide use per acre and accounts for the largest share of nitrogen fertilizer use among all crops.[373] Corn generally utilizes only 40 to 60 percent of the applied nitrogen fertilizer or the residual organic nitrogen from sources such as manure or soybeans. The remaining nitrogen is available to leave the field and run off to surface waters, leach into ground water, or volatilize to the air where it can return to water through depositional processes.

Over the past 20 years, corn has been increasingly grown in rotation with other crops, especially soybeans. As corn prices increase relative to prices for other crops, more farmers choose to grow corn every year (continuous corn). Continuous corn production results in significantly greater nitrogen losses annually than a corn-soybean rotation and lower yields per acre. In response, farmers may add higher rates of nitrogen fertilizer to try to match yields of corn grown in rotation. Growing continuous corn also increases the viability of pests such as corn rootworm. Farmers may increase the use of pesticides to control these pests. As corn acres increase, use of the common herbicides like atrazine and glyphosate (e.g. Roundup) may also increase.

High corn prices may encourage farmers to grow corn on lands that are marginal for row crop production such as hay land or pasture. Typically, agricultural producers apply far less fertilizers and pesticides on pasture land than land in row crops. Corn yield on these marginal lands will be lower and may require higher fertilizer rates. Disturbances of these soils can release nitrogen that has been stored in the soil. Since nitrogen fertilizer prices are tied to oil prices, fertilizer costs have fluctuated. How agricultural producers have responded to these changes in both corn and fertilizer prices is unclear.

Artificial drainage is another important factor in determining the losses of nutrients from cropland. Artificial drainage consists either of subsurface tiles/pipes or man-made ditches that move water from wet soils to surface waters so crops can be planted. In a few areas, drains move water to wells and then groundwater instead of to surface water. Artificial drainage has transformed large expanses of historic wetland soils into productive agriculture lands. However, the artificial drains or ditches also move nutrients and pesticides more quickly to surface waters without any of the attenuation that would occur if these contaminants moved through soils or wetlands. The highest proportion of tile drainage occurs in the Upper Mississippi and the Ohio-Tennessee River basins in areas of intensive corn production.[374] Manmade

[371] In this table, we have included only the estimates from the sector models as they provided a more detailed breakdown of costs and benefits. We have excluded estimates of the agricultural sector impacts of the RFS2 in Table VIII F–1 since these impacts are considered economic rents.

[372] U.S. Department of Agriculture, National Agricultural Statistics Service, "Crop Production", August 12, 2009, available online at: *http://usda.mannlib.cornell.edu/usda/current/CropProd/CropProd-08-12-2009.pdf.*

[373] Committee on Water Implications of Biofuels Production in the United States, National Research Council, 2008, Water implications of biofuels production in the United States, The National Academies Press, Washington, DC, 88 pp.

[374] U.S. Environmental Protection Agency, EPA Science Advisory Board, Hypoxia in the northern Gulf of Mexico, EPA–SAB–08–003, 275 p., available online at: *http://yosemite.epa.gov/sab/sabproduct.nsf/C3D2F27094E03F90852573B800601D93/$File/EPA-SAB-08-003complete.unsigned.pdf.*

ditches predominate in areas like the Eastern Shore of the Chesapeake Bay.

The increase in corn production and prices may also have significant impacts on voluntary conservation programs funded by the U.S. Department of Agriculture (USDA). Conservation programs provide important funding to help agricultural producers implement practices to protect water quality and other resources. As land values increase due to higher crop prices, USDA payments may not keep up with the need for farmers and tenant farmers, to make an adequate return. For example, the cost of farmland in Iowa increased an average of 18% in 2007 from 2006 prices.

Both land retirement programs, like the Conservation Reserve Program (CRP), and working land programs, like the Environmental Quality Incentives Program (EQIP), can be affected. Under CRP, USDA contracts with farmers to take land out of crop production to plant grasses or trees. Generally farmers put land into CRP because it is less productive and has other characteristics that make the cropland more environmentally sensitive, such as high erosion rates. CRP provides valuable environmental benefits both for water quality and for wildlife habitat. Midwestern states, where much of U.S. corn is grown, tend to have lower CRP reenrollment rates than the national average. Under EQIP, USDA makes cost-share payments to farmers to implement conservation practices. Some of the most cost-effective practices implemented through these conservation programs include: Riparian buffers; crop rotation; appropriate rate, timing, and method of fertilizer application; cover crops; and, on tile-drained lands, treatment wetlands and controlled drainage. If producers believe that participation in conservation programs may reduce their profits, they may be less willing to participate and/or require higher payments to offset perceived losses.

The water quality impacts of agricultural cellulosic feedstocks such as corn stover and switchgrass are unknown, since cellulosic ethanol is not currently produced commercially. Corn stover appears to be one of the most viable feedstock for cellulosic ethanol, especially in the Corn Belt states. When left in the field, corn stover maintains the soil organic carbon which has many benefits as a source of nutrients, preventing erosion by wind and water, and increasing soil aeration and water infiltration. If corn stover is overharvested, there may be impacts to both soil quality and water quality. Unlike corn, switchgrass is a native, perennial crop that does not require high inputs of fertilizers or pesticides. As a perennial crop, there is limited sediment runoff compared to annual crops. There is very minimal acreage of switchgrass grown at the present time, so it is difficult to predict what inputs farmers will use to cultivate it as a commercial crop. Some concern has been expressed about farmers increasing fertilizer application rates and irrigation on switchgrass to increase yields.

2. Ecological Impacts

Nitrogen and phosphorus enrichment due to human activities is one of the leading problems facing our nation's lakes, reservoirs, and estuaries. Nutrient enrichment also has negative impacts on aquatic life in streams; adverse health effects on humans and domestic animals; and impairs aesthetic and recreational use. Excess nutrients can lead to excessive growth of algae in rivers and streams, and aquatic plants in all waters. For example, declines in invertebrate community structure have been correlated directly with increases in phosphorus concentration. High concentrations of nitrogen in the form of ammonia are toxic to aquatic animals. Excessive levels of algae have also been shown to be damaging to invertebrates. Finally, fish and invertebrates will experience growth problems and can die if either oxygen is depleted or pH increases are severe. Both of these conditions are symptoms of eutrophication. As a biologic system becomes more enriched by nutrients, different species of algae may spread and species composition can shift.

Nutrient pollution is widespread. Although the most widely known examples of significant nutrient impacts are in the Gulf of Mexico and the Chesapeake Bay, there are known impacts in over 80 estuaries/bays, and thousands of rivers, streams, and lakes. Waterbodies in virtually every state and territory in the U.S. are impacted by nutrient-related degradation. Reducing nutrient pollution is a priority for EPA.

3. Impacts to the Gulf of Mexico

According to the National Research Council, nutrients and sediment are the two primary water quality problems in the Mississippi River Basin and the Gulf of Mexico.[375] Production of corn for ethanol may exacerbate these existing serious water quality problems. Nitrogen fertilizer applications to corn are already the major source of total nitrogen loadings to the Mississippi River. A large area of low oxygen, or hypoxia, forms in the Gulf of Mexico every year, often called the "dead zone." The primary cause of the hypoxia is excess nutrients (nitrogen and phosphorus) from the Upper Midwest flowing into the Mississippi River to the Gulf. These nutrients trigger excessive algal growth (or eutrophication) resulting in reduced sunlight, loss of aquatic habitat, and a decrease in oxygen dissolved in the water. Hypoxia threatens commercial and recreational fisheries in the Gulf because fish, shrimp, and other aquatic species cannot live in the low oxygen waters.

The 2008 hypoxic zone was measured at 8,000 square miles, the second largest since measurements began in 1985.[376] In 2009 models predicted an even larger hypoxic zone, but it was measured at only 3,000 square miles. A combination of below average high flows on the Mississippi River and winds that mixed Gulf waters are the likely causes of the reduced size of the 2009 zone. The Mississippi River/Gulf of Mexico Watershed Nutrient Task Force's "Gulf Hypoxia Action Plan 2008" calls for a 45% reduction in both nitrogen and phosphorus reaching the Gulf to reduce the size of the zone.[377] The Action Plan states that an additional reduction in nitrogen and phosphorus beyond the 45% would be necessary to account for increased corn production for ethanol and climate change impacts.

Alexander, et al.[378] modeled the sources of nutrient loadings to the Gulf of Mexico using the USGS SPARROW model. They estimated that agricultural sources contribute more than 70% of the delivered nitrogen and phosphorus. Corn and soybean production accounted for 52% of nitrogen delivery and 25% of the phosphorus delivery.

Several recent scientific reports have estimated the impact of increasing ethanol feedstock acres in the Gulf of

[375] Committee on the Mississippi River and the Clean Water Act, National Research Council, 2008, Mississippi River Water Quality and the Clean Water Act: Progress, Challenges, and Opportunities, The National Academies Press, Washington, DC, 252 pp.

[376] Louisiana Universities Marine Consortium, 2009, 'Gulf of Mexico Dead Zone Surprising Small, but Severe, available online at: *http://www.gulfhypoxia.net/Research/Shelfwide%20Cruises/2009/Files/Press_Release.pdf*.

[377] Mississippi River/Gulf of Mexico Watershed Nutrient Task Force, 2008, Gulf hypoxia action plan 2008 for reducing, mitigating, and controlling hypoxia in the northern Gulf of Mexico and improving water quality in the Mississippi River basin, 61 p., Washington, DC, available online at: *http://www.epa.gov/msbasin/actionplan.htm*.

[378] Alexander, R.B., Smith, R.A., Schwarz, G.E., Boyer, E.W., Nolan, J.V., and Brakebill, J.W., 2008, Differences in phosphorus and nitrogen delivery to the Gulf of Mexico from the Mississippi River basin, Environmental Science and Technology, v. 42, no. 3, p. 822–830, available online at: *http://pubs.acs.org/cgi-bin/abstract.cgi/esthag/2008/42/i03/abs/es0716103.html*.

Mexico watershed. Donner and Kucharik's[379] study showed increases in nitrogen export to the Gulf as a result of increasing corn ethanol production from 2007 levels to 15 billion gallons in 2022. They concluded that the expansion of corn-based ethanol production could make it almost impossible to meet the Gulf of Mexico nitrogen reduction goals without a "radical shift" in feed production, livestock diet, and management of agricultural lands. The study estimated a mean dissolved inorganic nitrogen load increase of 10% to 18% from 2007 to 2022 to meet the 15 billion gallon corn ethanol goal. EPA's Science Advisory Board report to the Mississippi River/Gulf of Mexico Watershed Task Force estimated that corn grown for ethanol will result in an additional national annual loading of almost 300 million pounds of nitrogen. An estimated 80% of that nitrogen loading or 238 million pounds will occur in the Mississippi-Atchafalaya River Basin and contribute nitrogen to the hypoxia in the Gulf of Mexico. The results of a study by Costello, et al. indicate that moving from corn to switchgrass and corn stover to produce ethanol will result in a 20% decrease in the nitrate outputs from the Mississippi-Atchafalaya River Basin. This decrease is not enough to meet the EPA target for reduction of the hypoxic zone reduction.[380]

B. Upper Mississippi River Basin Analysis

To provide a quantitative estimate of the impact of the increased use of renewable fuels and production of corn ethanol generally on water quality, EPA conducted an analysis that modeled the changes in loadings of nitrogen, phosphorus, and sediment from agricultural production in the Upper Mississippi River Basin (UMRB). The UMRB drains approximately 189,000 square miles, including large parts of the states of Illinois, Iowa, Minnesota, Missouri, and Wisconsin. Small portions of Indiana, Michigan, and South Dakota also lie within the basin. EPA selected the UMRB because it is representative of the many potential issues associated with ethanol production, including its connection to major water quality concerns such as Gulf of Mexico hypoxia, large corn production, and numerous ethanol production plants.

On average the UMRB contributes about 39% of the total nitrogen loads and 26% of the total phosphorus loads to the Gulf of Mexico. The high percentage of nitrogen from the UMRB is primarily due to the large inputs of fertilizer for agriculture and the 60% of cropland that is artificially drained by tiles. Since the mid 1990s, the annual nitrate-nitrogen flux has steadily decreased. The Science Advisory Board report attributes this decline to higher amount of nitrogen removed during harvest, due to higher crop yields. For the same time period, phosphorus inputs increased 12%.

1. SWAT Model

EPA selected the SWAT (Soil and Water Assessment Tool) model to assess nutrient and sediment loads from changes in agricultural production in the UMRB. SWAT is a physical process model developed to quantify the impact of land management practices in large, complex watersheds.[381]

2. AEO 2007 Reference Case

In order to assess alternative potential future conditions within the UMRB, EPA developed a SWAT model of a reference case scenario of current conditions against which to analyze the future impact of increased corn production. For the NPRM, we used a 2005 baseline. For the final rule, we revised the baseline to correspond with the agricultural analysis described in Section VIII.A. Therefore we used the corn ethanol production baseline from the Annual Energy Outlook (AEO) 2007 report[382] as our reference case. We assumed that 33% of the corn produced in the UMRB was converted to corn ethanol, based on estimates from USDA.[383] This baseline does not include corn ethanol produced at the volumes required by this rulemaking. The analysis assumes that no cellulosic ethanol, including ethanol produced from corn stover, would be produced in the reference case since the AEO report did not include cellulosic ethanol production in its estimates.

The SWAT model was applied (*i.e.,* calibrated) to the UMRB using 1960 to 2001 weather data and flow and water quality data from 13 USGS gages on the main stem of the Mississippi River. The 42-year SWAT model runs were performed and the results analyzed to establish runoff, sediment, nitrogen, and phosphorous loadings from each of the 131 8-digit HUC subwatersheds and the larger 4-digit subbasins, along with the total outflow from the UMRB and at the various USGS gage sites along the Mississippi River. These results provided the Reference Scenario model values to which the future alternatives are compared.

Physical structures that disconnect fertile floodplains with seasonal fluctuation of stream and river levels also affect water quantity and quality by altering the ability of these soils to serve as a sink for nutrient rich waters. In lieu of data on where these structures are or may be constructed, these effects were not modeled.

3. Reference Cases and RFS2 Control Case

To assess the impacts of the increased use of corn ethanol, we modeled an RFS2 Control Case and compared it to both the AEO 2007 Reference Case and the RFS1 Mandate Reference Case for the years 2010, 2015, 2020, and 2022. The RFS2 national corn ethanol volumes of 11.24 billion gallons a year (BGY) for 2010, and 15 BGY for 2016 to 2022 were adjusted for the UMRB. Annual increases in corn yield of 1.23% were built into the future scenarios. National average corn yields have been increasing primarily due to favorable weather conditions and improvement in practices to reduce stress on the corn plants from excess water, drought, and pests. Fewer corn acres were needed to meet ethanol production goals in the Control Case scenario after 2015 due to those yield increases. Corn acres increased 9% in 2022 between the AEO 2007 Reference Case and the RFS2 (No Stover) Control Case. We were not able to model the impacts of corn stover removal at this time, so the analysis only reflects the impacts of increased use of corn grain for renewable fuel use.

Tables IX.B.3–1 through IX.B.3–3 compare the model outputs for nitrogen, phosphorus, and sediment between the AEO 2007 Reference Case and the RFS2 (No Stover) Control Case scenarios for the years 2010, 2015, 2020, and 2022. Land load is the total amount of nitrogen or phosphorus that reaches a

[379] Donner, S.D. and Kucharik, C.J., 2008, Corn-based ethanol production compromises goal of reducing nitrogen export by the Mississippi River, PNAS, v. 105, no. 11, p. 4513–4518, available online at: *http://www.pnas.org/content/105/11/4513.full.*

[380] Costello, C.; Griffin, W.M.; Landis, A.E.; Matthew, H.S., 2009, Impact of biofuel crop production on the formation of hypoxia in the Gulf of Mexico, Environmental Science and Technology, *43* (20), pp. 7985–7991.

[381] Gassman, P.W., Reyes, M.R., Green, C.H., Arnold, J.G., 2007, The soil and water assessment tool: Historical development, applications, and future research directions. Transactions of the American Society of Agricultural and Biological Engineers, v. 50, no. 4, p. 1211–1240. *http://www.card.iastate.edu/environment/items/asabe_swat.pdf.*

[382] U. S. Department of Energy, Energy Information Administration, Annual Energy Outlook 2007 With Projections to 2030, February 2007, available on-line at: *http://tonto.eia.doe.gov/ftproot/forecasting/0383(2007).pdf.*

[383] U.S. Department of Agriculture, USDA Agricultural Projections to 2018, February 2009, available on-line at: *http://www.ers.usda.gov/Publications/OCE091/.*

stream within the UMRB. The total outflow is the nitrogen, phosphorus, or sediment measured at the outlet of the UMRB at Grafton, Illinois after accounting for in-stream loses due to uptake or assimilation. These results only estimate loadings from the Upper Mississippi River basin, not the entire Mississippi River watershed. As noted earlier, the UMRB contributes about 39% of the total nitrogen loads and 26% of total phosphorus loads to the Gulf of Mexico. The decreasing nutrient load over time is likely attributable to the increased average corn yield per acre, resulting in greater plant uptake of nitrogen and fewer corn acres planted to reach the ethanol production requirements of this rule.

TABLE IX.B.3–1—AVERAGE ANNUAL NITROGEN LOADS: COMPARISON OF AEO 2007 REFERENCE CASE TO THE 2022 RFS2 (NO STOVER) CONTROL CASE

[% difference in parentheses]

Model run	AEO 2007 reference case		2022 RFS2 (No Stover) Control case	
	Total land load, million lbs	Total outflow, million lbs	Total land load, million lbs	Total outflow, million lbs
2010	1948	1470	1944 (−0.21)	1467 (−0.20)
2015	1911	1441	1946 (1.83)	1469 (1.94)
2020	1887	1421	1912 (1.32)	1442 (1.48)
2022	1877	1413	1897 (1.07)	1430 (1.20)

About 24 to 26% of the nitrogen and phosphorus leaving agricultural fields was assimilated (taken by aquatic plants or volatilized) before reaching the outlet of the UMRB. The assimilated nitrogen is not necessarily eliminated as an environmental concern. Five percent or more of the nitrogen can be converted to nitrous gas, a powerful greenhouse gas that has 300 times the climate warming potential of carbon dioxide, the major greenhouse. Thus, a water pollutant becomes an air pollutant until it is either captured through biological sequestration or converted fully to elemental nitrogen.

TABLE IX.B.3–2—AVERAGE ANNUAL PHOSPHORUS LOADS: COMPARISON OF AEO 2007 REFERENCE CASE TO THE 2022 RFS2 (NO STOVER) CONTROL CASE

[% difference in parentheses]

Model run	AEO 2007 Reference case		2022 RFS2 (No Stover) control case	
	Total land load, million lbs	Total outflow, million lbs	Total land load, million lbs	Total outflow, million lbs
2010	180.0	133.8	179.9 (−0.06)	133.7 (−0.07)
2015	178.2	132.3	179.6 (0.79)	133.6 (0.98)
2020	177.0	131.3	178.2 (0.68)	132.4 (0.84)
2022	176.5	130.9	177.6 (0.62)	131.8 (0.69)

Total sediment outflow showed very little change over all scenarios. This result is primarily due to corn stover remaining on the field following harvest and therefore reducing sediment transport to water.

TABLE IX.B.3–3—AVERAGE ANNUAL SEDIMENT LOADS: COMPARISON OF AEO 2007 REFERENCE CASE TO THE 2022 RFS2 CONTROL CASE

[% difference in parentheses]

Model run	2007 AEO	2022 Control volume case
	Total outflow, million tons	Total outflow, million tons
2010	6.231	6.232 (0.02)
2015	6.221	6.233 (0.19)
2020	6.214	6.224 (0.16)
2022	6.211	6.220 (0.14)

The relationship between the number of acres of corn needed to produce ethanol and the crop yield is a complex relationship. Increased demand for corn based ethanol will not always result in increases in corn acres. Our modeling demonstrated that in less than a decade, increasing corn yields may counter the need for increased corn production resulting in the number of acres of corn stabilizing and additional nutrient and sediment loadings decreasing from the earlier peaks.

At this time, we are not able to assess the impact of these additional loadings on the size of the Gulf of Mexico hypoxia zone or water quality within the UMRB. For more details on the analysis, including comparisons with the RFS1, *see* Chapter 6 in the RIA.

4. Case Study

To evaluate local water quality impacts that are impossible to ascertain at the scale of the UMRB, we also modeled the Raccoon River watershed in central Iowa. The criteria for choosing this watershed included: Percentage of corn area representative of the UMRB, stream segments included in EPA's 303(d) list of impaired waters due to high nutrient levels, biorefinery plants, drinking water intakes, and observed streamflow and water quality data. Nearly 88% of the watershed is in agriculture. 75% of the watershed produces corn and soybeans, mostly in rotation. Hay and other row crops are produced on the remaining agriculture land. The city of Des Moines makes up about 8% of the watershed. The state of Iowa has listed numerous stream segments of the Raccoon River as impaired.

The case study used the same assumptions and scenarios as those used for the UMRB analysis. SWAT-simulated streamflow and water quality (total nitrogen and phosphorus, and sediment loadings) were calibrated against observed data at both monthly and yearly time steps.

As in the UMRB study, nitrogen loads to water increased for the future scenarios, though at a greater rate. Future phosphorus loads decreased in the Raccoon River model, where they had shown minor increases in the UMRB model. For the Raccoon River, there was a greater decrease in sediment load, which is the likely cause for the decrease in phosphorus loadings.

5. Sensitivity Analysis

Using the existing UMRB SWAT model, a sensitivity analysis was conducted on a number of important meteorological and management related factors. The goal was to further understand the model characteristics and sensitivities to parameters and input forcing functions that control the model response for the key environmental indicators of concern. Scenarios were constructed using four factors: fertilization application threshold, corn residue removal, daily air temperature, and daily precipitation. The results of the analysis showed that rainfall and temperature are the most influential factors for all model outputs: water yield, total nitrogen and phosphorus loadings, and sediment loadings. These results underscored the importance of representing these two driving factors accurately in hydrologic modeling. Corn residue removal noticeably reduced nutrient loading into streams while increasing sediment loads. However, since corn residue is the main source of organic nitrogen and phosphorus, the removal of the residue leads to the need for higher nutrient inputs in the growing season. The fertilization application threshold scenario did not tangibly impact water yield and sediment loading. The findings from this study indicated that future climate change could greatly influence water availability and pollution from corn cropland.

C. Additional Water Issues

The full water quality and water quantity impacts resulting from corn ethanol production go beyond the ability of our model. For example, the model does not account for fresh water constraints in irrigated agriculture in corn producing areas or predict future increases in drainage of agricultural lands. The following issues are summarized to provide additional context about the broader range of potential impacts. *See* Chapter 6 in the RIA for more discussion of these issues.

1. Chesapeake Bay Watershed

In May 2009, President Obama issued Executive Order 13508 on Chesapeake Bay Restoration and Protection. The order established a Federal Leadership Committee, chaired by EPA, and with senior representatives from the departments of Agriculture, Commerce, Defense, Homeland Security, Interior, and Transportation. In November 2009, these federal agencies released a draft strategy which contains a range of approaches for accelerating cleanup of the nation's largest estuary and its vast watershed.[384] The draft strategy calls for increased accountability and performance from pollution control, habitat protection and land conservation programs at all levels of government, including an expanded use of regulatory authorities to address pollution control and additional voluntary and market-based solutions—particularly when it comes to habitat protection and land conservation programs. The proposed actions are in response to overwhelming scientific evidence that the health of the Chesapeake Bay remains exceptionally poor, despite the concerted restoration efforts of the past 25 years.

Agricultural lands contribute more nutrients to the Chesapeake Bay than any other land use. To estimate the increase in nutrient loads to the Bay from changes to agricultural crop production from 2005 to 2008, the Chesapeake Bay Program Watershed Model Phase 4.3 and Vortex models were utilized. Total nitrogen loads increased by almost 2.4 million pounds from an increase of almost 66,000 corn acres. As agriculture land use shifts from hay and pasture to more intensively fertilized row crops, this analysis estimates that nitrogen loads increase by 8.8 million pounds.

2. Ethanol Production and Distribution

a. Production

There are three principal sources of discharges to water from ethanol plants: reject water from water purification, cooling water blowdown, and off-batch ethanol. Most ethanol facilities use onsite wells to produce the process water for the ethanol process. Groundwater sources are generally not suitable for process water because of their mineral content. Therefore, the water must be treated, commonly by reverse osmosis. For every two gallons of pure water produced, about a gallon of brine is discharged as reject water from this process. Most estimates of water consumption in ethanol production are based on the use of clean process water and neglect the water discharged as reject water.

The largest source of wastewater discharge is reverse osmosis reject water from process water purification. The reverse osmosis process concentrates groundwater minerals to levels where they can have water quality impacts. There is really no means of "treating" these ions to reduce toxicity, other than further concentration and disposal, or use of in-stream dilution. Some facilities have had to construct long pipelines to get access to dilution so they can meet water quality standards. Ethanol plants also discharge cooling water blowdown, where some water is discharged to avoid the buildup of minerals in the cooling system. These brines are similar to the reject water described above. In addition, if off-batch ethanol product or process water is discharged, the waste stream can have high Biochemical Oxygen Demand (BOD) levels. BOD directly affects the amount of dissolved oxygen in rivers and streams. The greater the BOD, the more rapidly oxygen is depleted in the stream. The consequences of high BOD are the same as those for low dissolved oxygen: aquatic organisms become stressed, suffocate, and die.

Older generation production facilities used four to six gallons of process water to produce a gallon of ethanol, but newer facilities use less than three gallons of water in the production process. Most of this water savings is gained through improved recycling of water and heat in the process. Water supply is a local issue, and there have been concerns with water consumption as new plants go online. Some facilities are tapping into deeper aquifers as a source of water. These deeper water resources tend to contain higher levels of minerals and this can further increase the concentration of minerals in reverse osmosis reject water. Geographic impacts of water use vary. A typical plant producing 50 million gallons of ethanol per year uses a minimum of 175 million gallons of water annually. In Iowa, water consumption from ethanol refining accounts for about seven percent of all industrial water use, and is projected to be 14% by 2012—or about 50 million gallons per day.

b. Distillers Grain with Solubles

Distillers grain with solubles (DGS) is an important co-product of ethanol production. About one-third of the corn processed into ethanol is converted into DGS. DGS has become an increasingly important feed component for confined livestock. DGS are higher in crude protein (nitrogen) and three to four times higher in phosphorus relative to

[384] Federal Leadership Committee for the Chesapeake Bay, November 9, 2009, Executive Order 13508: Draft Strategy for Protecting and Restoring the Chesapeake Bay, available on-line at: *http://executiveorder.chesapeakebay.net/*.

traditional feeds. When nitrogen and phosphorus are fed in excess of the animal's needs, these nutrients are excreted in the manure. When manure is applied to crops at rates above their nutrient needs or at times the crop cannot use the nutrients, the nutrients can run off to surface waters or leach into ground waters.

Livestock producers can limit the potential pollution from manure applications to crops by implementing comprehensive nutrient management. Due to the substantially higher phosphorus content of manure from livestock fed DGS, producers will potentially need significantly more acres to apply the manure so that phosphorus will not be applied at rates above the needs of the crops. This is a particularly important concern in areas where concentrated livestock production already produces more phosphorus in the manure than can be taken up by crops or pasture land in the vicinity.

Several recent studies have indicated that DGS may have an impact on food safety. Cattle fed DGS have a higher prevalence of a major food-borne pathogen, E. coli O157, than cattle without DGS in their diets.[385] More research is needed to confirm these studies and devise methods to eliminate the potential risks.

c. Ethanol Leaks and Spills from Fueling Stations

The potential for exposure to fuel components and/or additives can occur when underground fuel storage tanks leak fuel into ground water that is used for drinking water supplies or when spills occur from aboveground tanks or distribution systems that contaminate surface drinking water supplies, or surface waters. Additionally, in surface waters, rapid biodegradation of ethanol can result in depletion of dissolved oxygen with potential mortality to aquatic life.

Regarding leaks or spills and drinking water impacts, ethanol biodegrades quickly and is not necessarily the pollutant of greatest concern in these situations. Instead, ethanol's high biodegradability shifts the subsurface geochemistry, which can cause the reduced biodegradation of benzene, toluene, and xylene (up to 50% for toluene and 95% for benzene).[386] The plume of BTEX compounds from a fuel spill (benzene, toluene, ethylbenzene and xylenes) can extend as much as 70% farther in ground water and can persist longer, thereby increasing potential exposures to these compounds.[387]

Ethanol leak and spills from the approximately 600,000 gas stations in the U.S, could have a significant impact on water quality and drinking water supplies. Urban areas, that rely on ground water for drinking water would be affected most, especially where are existing water shortages.

With the increasing use of ethanol in the fuel supply nationwide, it is important to understand the impact of ethanol on the existing tank infrastructure. Federal regulations require that underground storage tank (UST) systems be compatible with the fuel stored. Because much of the current underground storage tank equipment was designed and tested for use with petroleum fuels, there may be many UST systems currently in use that contain materials that are incompatible with ethanol blends greater than 10%. Combined with the fact that ethanol is more corrosive than petroleum, there is concern regarding the increased potential for leaks from existing distribution systems, terminals and gas stations and subsequent impacts on water supplies. Given the practical challenges of determining the age and materials of underground storage equipment at approximately 233,000 federally regulated facilities, it may be difficult or impossible to confirm the compatibility of current underground storage tanks and other tank-related hardware with ethanol blends. Further discussion of challenges in retail distribution are discussed in Section 1.6 of the RIA.

In 2008, there were 7,400 reported releases from underground storage tanks. Therefore, EPA is undertaking analyses designed to assess the potential impacts of ethanol blends on tank infrastructure and leak detection systems and determine the resulting water quality impacts.

3. Biodiesel Plants

Biodiesel plants use much less water than ethanol plants. Water is used for washing impurities from the finished product. Water use is variable, but is usually less than one gallon of water for each gallon of biodiesel produced. Larger well-designed plants use water more sparingly, while smaller producers use more water. Some facilities recycle washwater, which reduces water consumption. The levels of BOD (biological oxygen demand) in process wastewater from biodiesel plants is highly variable. Most production processes produce washwater that has very high BOD levels. The high BOD levels of these wastes can overload and disrupt municipal treatment plants.

Crude glycerin is an important side product from the biodiesel process and is about 10% of the final product. Although there is a commercial market for glycerin, the rapid development of the biodiesel industry has caused a glut of glycerin production and many facilities dispose of their glycerin. Poor handling of crude glycerin has resulted in disruptions at sewage treatment plants and fish kills.

4. Water Quantity

Water demand for crop production for ethanol could potentially be much larger than biorefinery demand. According to the National Research Council, the demand for water to irrigate crops for biofuels will not have an impact on national water use, but it is likely to have significant local and regional impacts. The impact is crop and region specific, but could be especially great in areas where new acres are irrigated.

5. Drinking Water

Increased corn production will result in the increased use of fertilizers and herbicides which can drain to surface water or ground water sources used by public water systems and individual home owners on private wells. This may increase the occurrence of nitrate, nitrite, and the herbicide Atrazine in sources of drinking water. The U.S. Geological Survey evaluated the fate and transport of herbicides in surface water, ground water, and in precipitation in the Midwest during the 1990s. The results of these studies showed the occurrence and temporal distribution of herbicides and their associated degradation products in reservoir outflows.[388]

[385] Jacob, M. D., Fox, J. T., Drouillard, J. S., Renter, D. G., Nagaraja, T. G., 2008, Effects of dried distillers' grain on fecal prevalence and growth of *Escherichia coli* O157 in batch culture fermentations from cattle, Applied and Environmental Microbiology, v. 74, no. 1, p. 38–43, available online at: *http://aem.asm.org/cgi/content/abstract/74/1/38*.

[386] Mackay, D.M., de Sieyes, N. R., Einarson, M.D., Feris, K.P., Pappas, A.A., Wood, I.A., Jacobson, L., Justice, L.G., Noske, M.N., Scow, K.M., and Wilson, J.T., 2006, Impact of ethanol on the natural attenuation of benzene, toluene, and o-Xylene in a normally sulfate-reducing aquifer, Environmental Science & Technology, v. 40, p. 6123–6130.

[387] Ruiz-Aguilar, G. M. L.; O'Reilly, K.; Alvarez, P. J. J., 2003, Forum: A comparison of benzene and toluene plume lengths for sites contaminated with regular vs. ethanol-amended gasoline, Ground Water Monitoring and Remediation, v. 23, p. 48–53.

[388] Scribner, E.A., Thurman, E.M., Goolsby, D.A., Meyer, M.T., Battaglin, W.A., and Kolpin, D.W., 2005, Summary of significant results from studies

Continued

Under the Safe Drinking Water Act, EPA has established enforceable standards for these contaminants that apply to public water systems. Source water contamination by these chemicals may raise local water system costs for treatment or for increased energy to pump water where ethanol production is accelerating the long running depletion of aquifers e.g., pumping extra water to grow the additional corn in addition to pumping extra water to process the corn into ethanol. There is also an (often concurrent) risk of exhausting local drinking water supplies where aquifers have been severely depleted.

X. 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 May 26, 2009 (74 FR 24904), and we considered these comments in developing the final rule. In addition, we held a public hearing on the proposed rulemaking on June 9, 2009, and we have considered comments presented at the hearing.

Throughout the rulemaking process, EPA met with stakeholders including representatives from the fuel and renewable fuels industries, the agricultural sector, 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 the 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 (*http://www.epa.gov/otaq/renewablefuels/index.htm*). In addition, comments and responses for key issues are included throughout this preamble.

XI. 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 in response to OMB recommendations 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 Regulatory Impact Analysis, which is available in the docket for this rulemaking and at the docket internet address listed under **ADDRESSES** in the first part of this final rule.

B. Paperwork Reduction Act

The information collection requirements in this 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.* The information collection requirements are not enforceable until OMB approves them.

Information to be collected under this rulemaking includes compliance reports and reports regarding the generation and assignment of, and transactions involving, RINs. This final rule involves registration requirements, recordkeeping and reporting. Affected parties include producers of renewable fuels, importers, domestic and foreign refiners, exporters, domestic and foreign parties who own RINs, and biofuel feedstock producers. Individual items of recordkeeping and reporting are discussed in great detail in this preamble and in the "Supporting Statement for the Renewable Fuels Standard (RFS2) Final Rule," which has been placed in the public docket.

We estimate the annual recordkeeping and reporting burden for this rule at 3.2 hours per response. We estimate a total of 1,060,026 respondents; 4,781,126 responses; 1,485,008 burden hours, and a total cost associated with responding of $112,872,105. Burden is defined at 5 CFR 1320.3(b).

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. In addition, EPA is amending the table in 40 CFR part 9 of currently approved OMB control numbers for various regulations to list the regulatory citations for the information 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 the renewable fuel volume requirements of RFS2 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 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.

The following table provides an overview of the primary SBA small business categories potentially affected by this regulation:

Industry [a]	Defined as small entity by SBA if:	NAICS [a] codes
Gasoline and diesel fuel refiners.	≤1,500 employees.	324110

[a] North American Industrial Classification System.

2. Background

Section 1501 of the Energy Policy Act of 2005 (EPAct) amended section 211 of the Clean Air Act (CAA) by adding section 211(o) which required the Environmental Protection Agency (EPA) to promulgate regulations implementing a renewable fuel program. EPAct specified that the regulations must ensure a specific volume of renewable fuel to be used in gasoline sold in the U.S. each year, with the total volume increasing over time. The goal of the program was to reduce dependence on foreign sources of petroleum, increase domestic sources of energy, and help transition to alternatives to petroleum in the transportation sector.

The final Renewable Fuels Standard (RFS1) program rule was published on May 1, 2007, and the program began on September 1, 2007. Per EPAct, the RFS1 program created a specific annual level

of triazine herbicides and their degradation products in surface water, ground water, and precipitation in the Midwestern United States during the 1990s: U.S. Geological Survey Scientific Investigations Report 2005–5094, 27 p.

for minimum renewable fuel use that increases over time—resulting in a requirement that 7.5 billion gallons of renewable fuel be blended into gasoline (for highway use only) by 2012. Under the RFS1 program, compliance is based on meeting the required annual renewable fuel volume percent standard (published annually in the **Federal Register** by EPA) through the use of Renewable Identification Numbers, or RINs, 38-digit serial numbers assigned to each batch of renewable fuel produced. For obligated parties (those who must meet the annual volume percent standard), RINs must be acquired to show compliance.

The Energy Independence and Security Act of 2007 (EISA) amended section 211(o), and the RFS program, by requiring higher volumes of renewable fuels, to result in 36 billion gallons of renewable fuel by 2022. EISA also expanded the purview of the RFS1 program by requiring that these renewable fuels be blended into gasoline and diesel fuel (both highway and nonroad). This expanded the pool of regulated entities, so the obligated parties under the RFS program will now include certain refiners, importers, and blenders of these fuels that were not previously covered by the RFS1 program. In addition to the total renewable fuel standard required by EPAct, EISA added standards for three additional types of renewable fuels to the program (advanced biofuel, cellulosic biofuel, and biomass-based diesel) and requires compliance with all four standards.

As required by section 609(b) of the RFA, as amended by SBREFA, EPA also conducted outreach to small entities and convened a Small Business Advocacy Review Panel to obtain advice and recommendations of representatives of the small entities that potentially would be subject to the rule's requirements.

3. Summary of Potentially Affected Small Entities

The small entities that will potentially be subject to the RFS program include: domestic refiners that produce gasoline and/or diesel and importers of gasoline and/or diesel into the United States. Based on 2007 data, EPA believes that there are about 95 refiners of gasoline and diesel fuel. Of these, EPA believes that there are currently 17 refiners, owning 20 refineries, producing gasoline and/or diesel fuel that meet the SBA small entity definition of having 1,500 employees or less. Further, we believe that three of these refiners own refineries that do not meet the Congressional "small refinery" definition.[389] It should be noted that because of the dynamics in the refining industry (i.e., mergers and acquisitions), the actual number of refiners that ultimately qualify for small refiner status under the RFS2 rule could be different than this estimate.

4. Reporting, Recordkeeping, and Compliance

Registration, reporting, and recordkeeping are necessary to track compliance with the RFS standards and transactions involving RINs. As discussed above in Sections II.J and III.A, the compliance requirements under the RFS2 rule are in many ways similar to those required under the RFS1 rule, with some modifications (e.g., those to account for the new requirements of EISA). New provisions being finalized in today's action include the new EPA Moderated Transaction System (EMTS) which allows for "real-time" reporting of RIN generation transactions, and the ability for small blenders to "delegate" their RIN-separation responsibilities to the party directly upstream. Please see Sections II and III of this preamble for more detailed information on these and other registration, recordkeeping, reporting, and compliance requirements of this final rule.

5. Related Federal Rules

We are aware of a few other current or proposed Federal rules that are related to this rule. The primary related Federal rules are: the first Renewable Fuel Standard (RFS1) rule (72 FR 23900, May 1, 2007), the RFS1 Technical Amendment Direct Final Rulemaking (73 FR 57248, October 2, 2008),[390] and Control of Emissions from New Marine Compression-Ignition Engines at or Above 30 Liters per Cylinder (proposed rule: 74 FR 44442, August 28, 2009; final rule: *Signed December 22, 2009*).

6. Steps Taken To Minimize the Significant Economic Impact on Small Entities

a. Significant Panel Findings

We convened a Small Business Advocacy Review Panel (SBAR Panel, or the Panel), which considered many regulatory options and flexibilities that would help mitigate potential adverse effects on small businesses as a result of the increased volumes of renewable fuel required by RFS2. During the SBREFA Panel process, the Panel sought out and received comments on the regulatory options and flexibilities that were presented to Small Entity Representatives (SERs) and Panel members. The major flexibilities and hardship relief provisions that were recommended by the Panel were proposed and some are being finalized today (for more information regarding the Panel process, see the SBREFA Final Panel Report, which is available in the public docket for this rule).

b. Outreach With Small Entities (and the Panel Process)

As required by section 609(b) of the RFA as amended by SBREFA, EPA conducted outreach to small entities and convened a SBAR Panel prior to proposing the RFS2 rule to obtain advice and recommendations of representatives of the small entities that potentially would be subject to the rule's requirements.

As part of the SBAR Panel process, we conducted outreach with representatives from the various small entities that would be affected by the rule. We met with these SERs to discuss the potential rulemaking approaches and potential options to decrease the impact of the rulemaking on their industries. The Panel received written comments from the SERs, specifically on regulatory alternatives that could help to minimize the rule's impact on small businesses. In general, SERs stated that they believed that small refiners would face challenges in meeting the new standards. More specifically, they voiced concerns with respect to the RIN program itself, uncertainty (with the required renewable fuel volumes, RIN availability, and cost), and the desire for a RIN system review.

The Panel agreed that EPA should consider the issues raised by the SERs (and discussions had by the Panel itself) and that EPA should consider comments on flexibility alternatives that would help to mitigate any negative impacts on small businesses. Alternatives discussed throughout the Panel process included those offered in previous or current EPA rulemakings, as well as alternatives suggested by SERs and Panel members, and the Panel recommended that all be considered in the development of the rule.

A summary of the Panel's recommendations, what the Agency proposed, and what is being finalized

[389] EPAct defined a "small refinery" as a refinery with a crude throughput of no more than 75,000 barrels of crude per day (at CAA section 211(o)(1)(K)). This definition is based on facility size and is different than SBA's small refiner definition (which is based on company size). A small refinery could be owned by a larger refiner that exceeds SBA's small entity standards. SBA's size standards were established to set apart those businesses which are most likely to be at an inherent economic disadvantage relative to larger businesses.

[390] This Direct Final Rule corrects minor typographical errors and provides clarification on existing provisions in the RFS1 regulations.

today is discussed below. A detailed discussion of the regulatory alternatives and hardship provisions discussed and recommended by the Panel can be found in the SBREFA Final Panel Report, and a discussion of the provisions being finalized today is located in Section III.E of this preamble.

c. Panel Recommendations, Proposed Provisions, and Provisions Being Finalized

The purpose of the Panel process is to solicit information as well as suggested flexibility options from the SERs, and the Panel recommended that EPA continue to do so during the development of the RFS2 rule. Recognizing the concerns about EPA's authority to provide extensions to a subset of small refineries (*i.e.,* those that are owned by small refiners) different from that provided to small refineries in section 211(o)(9), the Panel recommended that EPA continue to evaluate this issue, and that EPA request comment on its authority and the appropriateness of providing extensions beyond those authorized by section 211(o)(9) for small refineries operated by a small refiner. The Panel also recommended that EPA propose to provide the same extension provision of 211(o)(9) to small refiners who do not own small refineries as is provided for small refiners who do own small refineries.

i. Delay in Standards

The RFS1 program regulations provide small refiners who operate small refineries as well as small refiners who do not operate small refineries with a temporary exemption from the standard through December 31, 2010. Small refiner SERs suggested that an additional temporary exemption for the RFS2 program would be beneficial to them in meeting the RFS2 standards. EPA evaluated a temporary exemption for at least some of the four required RFS2 standards for small refiners. The Panel recommended that EPA propose a delay in the effective date of the standards until 2014 for small entities, to the maximum extent allowed by the statute. However, the Panel recognized that EPA has serious concerns about its authority to provide an extension of the temporary exemption for small refineries that is different from that provided in CAA section 211(o)(9), since Congress specifically addressed an extension for small refineries in that provision.

The Panel did recommend that EPA propose other avenues through which small refineries and small refiners could receive extensions of the temporary exemption. These avenues were a possible extension of the temporary exemption for an additional two years following a study of small refineries by the Department of Energy (DOE) and provisions for case-by-case economic hardship relief.

We proposed and took comment on the recommendations of the Panel and SERs above. As discussed in section III.E of this preamble, based on our analysis and further review of the provisions and the DOE Small Refinery Study, we have decided to finalize continuing the small refinery and small refiner exemption finalized in RFS1 through December 31, 2010 for all small refiners.

ii. Phase-in

Small refiner SERs' suggested that a phase-in of the obligations applicable to small refiners would be beneficial for compliance, such that small refiners would comply by gradually meeting the standards on an incremental basis over a period of time, after which point they would comply fully with the RFS2 standards, EPA has serious concerns about its authority to allow for such a phase-in of the standards. CAA section 211(o)(3)(B) states that the renewable fuel obligation shall "consist of a single applicable percentage that applies to all categories of persons specified" as obligated parties. This kind of phase-in approach would result in different applicable percentages being applied to different obligated parties. Further, as discussed above, such a phase-in approach would provide more relief to small refineries operated by small refiners than that provided under the small refinery provision. Thus the Panel recommended that EPA should invite comment on a phase-in, but not propose such a provision.

We took comment on this provision, however we are not finalizing this provision, as we continue to believe that a phase-in of the applicable standards would in fact result in different standards for small refiners.

iii. RIN-Related Flexibilities

The small refiner SERs requested that the proposed rule contain provisions for small refiners related to the RIN system, such as flexibilities in the RIN rollover cap percentage and allowing all small refiners to use RINs interchangeably. In the RFS1 program, EPA allows for 20% of a previous year's RINs to be "rolled over" and used for compliance in the following year. We noted during the Panel process that a provision to allow for flexibilities in the rollover cap could include a higher RIN rollover cap for small refiners for some period of time or for at least some of the four standards. Further, we noted our belief that since the concept of a rollover cap was not mandated by section 211(o), EPA believes that there may be an opportunity to provide appropriate flexibility in this area to small refiners under the RFS2 program but only if it is determined in the DOE small refinery study that there is a disproportionate effect warranting relief. The Panel recommended that EPA request comment on increasing the RIN rollover cap percentage for small refiners, and further that EPA should request comment on an appropriate level of that percentage. The Panel also recommended that EPA invite comment on allowing RINs to be used interchangeably for small refiners, but not propose this concept because under this approach small refiners would arguably be subject to a different applicable percentage than other obligated parties.

We proposed a change to the RIN rollover cap, and took comment on the concept of allowing RINs to be used interchangeably for small refiners only. As noted above in section III of this preamble, we are not finalizing RIN-related provisions in today's action. As highlighted in the NPRM, we continue to believe that the concept of interchangeable RINs for small refiners only fails to require the four different standards mandated by Congress (e.g., conventional biofuel could not be used instead of cellulosic biofuel or biomass-based diesel). Further, given the findings from the DOE study, if small refineries and small refiners do not face disproportionate economic hardship, then we do not believe that we have the basis for granting such additional relief beyond what Congress already provided. Thus, small refiners will be held to the same RIN rollover cap as other obligated parties.

iv. Program Review

With regard to the suggested program review, EPA raised the concern that this could lead to some redundancy since EPA is required to publish a notice of the applicable RFS standards in the **Federal Register** annually, and that this annual process will inevitably include an evaluation of the projected availability of renewable fuels. Nevertheless, the SBA and OMB Panel members stated that they believe that a program review could be helpful to small entities in providing them some insight to the RFS program's progress and alleviate some uncertainty regarding the RIN system. As EPA will be publishing a **Federal Register** notice annually, the Panel recommended that

EPA include an update of RIN system progress (*e.g.,* RIN trading, RIN availability, etc.) in this notice and that the results of this evaluation be considered in any request for case-by-case hardship relief.

We did propose that in the annual notice of the RFS standards that EPA must publish in the **Federal Register**, we would also include information to help inform industry about the RIN system. We also proposed that information from the annual Production Outlook Reports that producers and importers must submit to EPA, as well as information required in EMTS reports, could be used in the annual **Federal Register** notice to update RIN system progress. However, during the development of the final rule, it became evident that there could be instances where we would want to report out RIN system information on a more frequent basis than just once a year. Thus we are finalizing that we will report out elements of RIN system progress; but such information will be reported via other means (*e.g.,* the RFS Web site (*www.epa.gov/otaq/renewablefuels/index.htm*), EMTS homepage, etc.). Additionally, we will also publish annual summaries of the Production Outlook Reports.

v. Extensions of the Temporary Exemption Based on a Study of Small Refinery Impacts

The Panel recommended that EPA propose in the RFS2 program the provision at 40 CFR 80.1141(e) extending the RFS1 temporary exemption for at least two years for any small refinery that DOE determines would be subject to disproportionate economic hardship if required to comply with the RFS2 requirements.

Section 211(o)(9)(A)(ii) required that by December 31, 2008, DOE was to perform a study of the economic impacts of the RFS requirements on small refineries to assess and determine whether the RFS requirements would impose a disproportionate economic hardship on small refineries, and submit this study to EPA. Section 211(o)(9) also provided that small refineries found to be in a disproportionate economic hardship situation would receive an extension of the temporary exemption for at least two years.

The Panel also recommended that EPA work with DOE in the development of the small refinery study, specifically to communicate the comments that SERs raised during the Panel process.

We did not propose and are not finalizing this hardship provision given the outcome of the DOE small refinery study. In the small refinery study, "EPACT 2005 Section 1501 Small Refineries Exemption Study", DOE's finding was that there is no reason to believe that any small refinery would be disproportionately harmed by inclusion in the proposed RFS2 program. This finding was based on the fact that there appeared to be no shortage of RINs available under RFS1, and EISA has provided flexibility through waiver authority (per section 211(o)(7)). Further, in the case of the cellulosic biofuel standard, cellulosic biofuel allowances can be provided from EPA at prices established in EISA (*see* regulation section 80.1455). DOE thus determined that no small refinery would be subject to disproportionate economic hardship under the proposed RFS2 program, and that the small refinery exemption should not be extended beyond December 31, 2010. DOE noted in the study that, if circumstances were to change and/or the RIN market were to become non-competitive or illiquid, individual small refineries have the ability to petition EPA for an extension of their small refinery exemption (as stated in regulation section 80.1441).

As discussed in section III.E of this preamble, since the only small refinery study available for us to use as a basis for whether or not to grant small refineries an automatic two-year extension of the exemption is the study that was performed in 2008, we had to use this study to develop this final rule. EPAct directs EPA to consider the DOE small refinery study in assessing the impacts to small refineries, and we interpret this to mean that any extension past December 31, 2010 has to be tied to the DOE Study. Further, since that study found that there was no disproportionate economic impact on small refineries, we cannot grant an automatic additional extension for small refineries or small refiners (except on a case-by-case hardship basis). However, this does not preclude small refiners from applying for case-by-case extensions of the small refiner temporary exemption.

Note that if the revised DOE study (*see* Section III.E.3 of this preamble) finds that there is a disproportionate economic impact, we will revisit the extension of the temporary exemption at that point.

vi. Extensions of the Temporary Exemption Based on Disproportionate Economic Hardship

While SERs did not specifically comment on the concept of hardship provisions for the upcoming proposal, the Panel noted that under CAA section 211(o)(9)(B) small refineries may petition EPA for case-by-case extensions of the small refinery temporary exemption on the basis of disproportionate economic hardship. Refiners may petition EPA for this case-by-case hardship relief at any time.

The Panel recommended that EPA propose in the RFS2 program a case-by-case hardship provision for small refineries similar to that provided at 40 CFR 80.1141(e)(1). The Panel also recommended that EPA propose a case-by-case hardship provision for small refiners that do not operate small refineries that is comparable to that provided for small refineries under section 211(o)(9)(B), using its discretion under CAA section 211(o)(3)(B). This would apply if EPA does not adopt an automatic extension for small refiners, and would allow those small refiners that do not operate small refineries to apply for the same kind of extension as a small refinery. The Panel recommended that EPA take into consideration the results of the annual update of RIN system progress and the DOE small refinery study in assessing such hardship applications.

We believe that these avenues of relief can and should be fully explored by small refiners who are covered by the small refinery provision. In addition, we believe that it is appropriate to allow petitions to EPA for an extension of the temporary exemption based on disproportionate economic hardship for those small refiners who are not covered by the small refinery provision (again, per our discretion under section 211(o)(3)(B)); this would ensure that all small refiners have the same relief available to them as small refineries do. Thus, we are finalizing a hardship provision for small refineries in the RFS2 program, that any small refinery may apply for a case-by-case hardship at any time on the basis of disproportionate economic hardship per CAA section 211(o)(9)(B). We are also finalizing a case-by-case hardship provision for those small refiners that do not operate small refineries (section 80.1442(h)) using our discretion under CAA section 211(o)(3)(B). This provision will allow those small refiners that do not operate small refineries to apply for the same kind of extension as a small refinery. In evaluating applications for this hardship provision EPA will take into consideration information gathered from annual reports and RIN system progress updates, as recommended by the SBAR Panel.

7. Conclusions

Pursuant to section 603 of the RFA, EPA prepared an initial regulatory flexibility analysis (IRFA) for the

proposed rule and convened a Small Business Advocacy Review Panel to obtain advice and recommendations of representatives of the regulated small entities (*see* 74 FR 24904, May 26, 2009). A detailed discussion of the Panel's advice and recommendations is found in the Panel Report, located in the rulemaking docket. A summary of the Panel's recommendations is presented at 74 FR 25106 (May 26, 2009).

As required by section 604 of the RFA, we also prepared a final regulatory flexibility analysis (FRFA) for today's final rule. The FRFA addresses the issues raised by public comments on the IRFA, which was part of the proposal of this rule. The FRFA is available for review in the docket and is summarized above.

Many aspects of the RFS2 rule, such as the required amounts of annual renewable fuel volumes, are specified in EPAct and EISA. As discussed above, small refiners and small refineries receive an exemption from the RFS standards until January 1, 2011 and are not required to make expensive capital improvements like those required under other EPA fuels programs. Further, the DOE small refinery study did not find that there was a disproportionate economic impact on small refineries as a whole as a result of this rule (and the majority of the refiners that meet the definition of a small refiner, also own refineries that meet the Congressional small refinery definition).

A cost-to-sales ratio test, a ratio of the estimated annualized compliance costs to the value of sales per company, was performed for gasoline and/or diesel small refiners. From this cost-to-sales test, it was estimated that all small entities have compliance costs that are less than one percent of their sales (a complete discussion of the costs to refiners as a result of the increased volumes of renewable fuel required by EISA is located in Section VII of this preamble).

As required by section 212 of SBREFA, EPA also is preparing a Small Entity Compliance Guide to help small entities comply with this rule. This guide will be available on the RFS Web site (*www.epa.gov/otaq/renewablefuels/index.htm*), and will be available 60 days after the rule is finalized.

D. Unfunded Mandates Reform Act

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), 2 U.S.C. 1531–1538, requires Federal agencies, unless otherwise prohibited by law, 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.

This rule is not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. EPA has determined that this rule contains a Federal mandate that may result in expenditures of $100 million or more for the private sector in any one year, but the rule imposes no enforceable duty on any State, local or tribal governments. Nonetheless, EPA believes that today's action represents the least costly, most cost-effective approach to achieve the statutory requirements of the rule. The costs and benefits associated with the increased use of renewable fuels are discussed above and in the Regulatory Impact Analysis, as required by 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. Thus, Executive Order 13132 does not apply to this rule.

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

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). This rule will be implemented at the Federal level and impose compliance costs only on transportation fuel refiners, blenders, marketers, distributors, importers, and exporters. Tribal governments would be affected only to the extent they purchase and use regulated fuels. Thus, Executive Order 13175 does not apply to this action. EPA specifically solicited comment on the proposed rule from tribal officials.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets EO 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the EO has the potential to influence the regulation. This action is not subject to EO 13045 because it does not establish an environmental standard intended to mitigate health or safety risks and because it implements specific standards established by Congress in statutes.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This rule is not subject to Executive Order 13211 (66 FR 28355 (May 22, 2001)), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. In fact, this rule has a positive effect on energy supply and use. By promoting the diversification of transportation fuels, the increased use of renewable fuels enhances energy supply. Therefore, we have concluded that this rule is not likely to have any adverse energy effects. Our energy effects analysis is discussed in Section VIII.B.

I. National Technology Transfer Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 ("NTTAA"), Public Law 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. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use

available and applicable voluntary consensus standards.

This rulemaking changes the Renewable Fuel Standard (RFS) program at Title 40 of the Code of Federal Regulations, Subpart K which already contains voluntary consensus standard ASTM D6751–06a "Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels". This rulemaking incorporates the most recent version of that standard (ASTM D–6751–08) and adds several more voluntary consensus standards: ASTM D–1250–08, "Standard Guide for Use of the Petroleum Measurement Tables"; ASTM D–4442, "Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Base Materials"; ASTM D–4444, "Standard Test Method for Laboratory Standardization and Calibration of Hand-Held Moisture Meters"; ASTM D–6866–08 "Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis"; ASTM E–711, "Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter"; and ASTM E–870, "Standard Test Methods for Analysis of Wood Fuels". Information about these standards may be obtained through the ASTM Web site (*http://www.astm.org*) or by calling ASTM at (610) 832–9585.

This rulemaking does not change these voluntary consensus standards, and does not involve any other technical standards. Therefore, EPA is not considering the use of any voluntary consensus standards other than those described above.

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 lacks the discretionary authority to address environmental justice in this rulemaking since the Agency is implementing specific standards established by Congress in statutes. Although EPA lacks authority to modify today's regulatory action on the basis of environmental justice considerations, EPA nevertheless determined that this rule does not have a disproportionately high and adverse human health or environmental impact on minority or low-income populations.

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 1, 2010.

XII. Statutory Provisions and Legal Authority

Statutory authority for the rule finalized today can be found in section 211 of the Clean Air Act, 42 U.S.C. 7545. Additional support for the procedural and compliance related aspects of today's rule, including the recordkeeping requirements, come from Sections 114, 208, and 301(a) of the Clean Air Act, 42 U.S.C. 7414, 7542, and 7601(a).

List of Subjects in 40 CFR Part 80

Environmental protection, Administrative practice and procedure, Agriculture, Air pollution control, Confidential business information, Diesel Fuel, Energy, Forest and Forest Products, Fuel additives, Gasoline, Imports, Incorporation by reference, Labeling, Motor vehicle pollution, Penalties, Petroleum, Reporting and recordkeeping requirements.

Dated: February 3, 2010.

Lisa P. Jackson,

Administrator.

■ For the reasons set forth in the preamble, 40 CFR part 80 is amended as follows:

PART 80—REGULATION OF FUELS AND FUEL ADDITIVES

■ 1. The authority citation for part 80 continues to read as follows:

Authority: 42 U.S.C. 7414, 7542, 7545, and 7601(a).

■ 2. A new Subpart M is added to part 80 to read as follows:

Subpart M—Renewable Fuel Standard

Sec.

80.1400 Applicability.
80.1401 Definitions.
80.1402 [Reserved]
80.1403 Which fuels are not subject to the 20% GHG thresholds?
80.1404 [Reserved]
80.1405 What are the Renewable Fuel Standards?
80.1406 Who is an obligated party under the RFS program?
80.1407 How are the Renewable Volume Obligations calculated?
80.1408–80.1414 [Reserved]
80.1415 How are equivalence values assigned to renewable fuel?
80.1416 Petition process for evaluation of new renewable fuels and pathways.
80.1417–80.1424 [Reserved]
80.1425 Renewable Identification Numbers (RINs).
80.1426 How are RINs generated and assigned to batches of renewable fuel by renewable fuel producers or importers?
80.1427 How are RINs used to demonstrate compliance?
80.1428 General requirements for RIN distribution.
80.1429 Requirements for separating RINs from volumes of renewable fuel.
80.1430 Requirements for exporters of renewable fuels.
80.1431 Treatment of invalid RINs.
80.1432 Reported spillage or disposal of renewable fuel.
80.1433–80.1439 [Reserved]
80.1440 What are the provisions for blenders who handle and blend less than 125,000 gallons of renewable fuel per year?
80.1441 Small refinery exemption.
80.1442 What are the provisions for small refiners under the RFS program?
80.1443 What are the opt-in provisions for noncontiguous states and territories?
80.1444–80.1448 [Reserved]
80.1449 What are the Production Outlook Report requirements?
80.1450 What are the registration requirements under the RFS program?
80.1451 What are the reporting requirements under the RFS program?
80.1452 What are the requirements related to the EPA Moderated Transaction System (EMTS)?
80.1453 What are the product transfer document (PTD) requirements for the RFS program?
80.1454 What are the recordkeeping requirements under the RFS program?
80.1455 What are the small volume provisions for renewable fuel production facilities and importers?
80.1456 What are the provisions for cellulosic biofuel waiver credits?
80.1457–80.1459 [Reserved]
80.1460 What acts are prohibited under the RFS program?
80.1461 Who is liable for violations under the RFS program?
80.1462 [Reserved]
80.1463 What penalties apply under the RFS program?

80.1464 What are the attest engagement requirements under the RFS program?
80.1465 What are the additional requirements under this subpart for foreign small refiners, foreign small refineries, and importers of RFS–FRFUEL?
80.1466 What are the additional requirements under this subpart for RIN-generating foreign producers and importers of renewable fuels for which RINs have been generated by the foreign producer?
80.1467 What are the additional requirements under this subpart for a foreign RIN owner?
80.1468 Incorporation by reference.

Subpart M—Renewable Fuel Standard

§ 80.1400 Applicability.

The provisions of this Subpart M shall apply for all renewable fuel produced on or after July 1, 2010, for all RINs generated on or after July 1, 2010, and for all renewable volume obligations and compliance periods starting with January 1, 2010. Except as provided otherwise in this Subpart M, the provisions of Subpart K of this Part 80 shall not apply for such renewable fuel, RINs, renewable volume obligations, or compliance periods.

§ 80.1401 Definitions.

The definitions of § 80.2 and of this section apply for the purposes of this Subpart M. The definitions of this section do not apply to other subparts unless otherwise noted. Note that many terms defined here are common terms that have specific meanings under this subpart M. The definitions follow:

Advanced biofuel means renewable fuel, other than ethanol derived from cornstarch, has lifecycle greenhouse gas emissions that are at least 50 percent less than baseline lifecycle greenhouse gas emissions.

Annual cover crop means an annual crop, planted as a rotation between primary planted crops, or between trees and vines in orchards and vineyards, typically to protect soil from erosion and to improve the soil between periods of regular crops.

Areas at risk of wildfire are those areas in the "wildland-urban interface", where humans and their development meet or intermix with wildland fuel. Note that, for guidance, the SILVIS laboratory at the University of Wisconsin maintains a Web site that provides a detailed map of areas meeting this criteria at: *http://www.silvis.forest.wisc.edu/projects/US_WUI_2000.asp.* The SILVIS laboratory is located at 1630 Linden Drive, Madison, Wisconsin 53706 and can be contacted at (608) 263–4349.

Baseline lifecycle greenhouse gas emissions means the average lifecycle greenhouse gas emissions for gasoline or diesel (whichever is being replaced by the renewable fuel) sold or distributed as transportation fuel in 2005.

Biodiesel means a mono-alkyl ester that meets ASTM D 6751 (incorporated by reference, *see* § 80.1468).

Biogas means a mixture of hydrocarbons that is a gas at 60 degrees Fahrenheit and 1 atmosphere of pressure that is produced through the conversion of organic matter. Biogas that is used to generate RINs must be renewable fuel. Biogas includes propane, and landfill gas, manure digester gas, and sewage waste treatment gas.

Biomass-based diesel means a renewable fuel that has lifecycle greenhouse gas emissions that are at least 50 percent less than baseline lifecycle greenhouse gas emissions and meets all of the requirements of paragraph (1) of this definition:

(1)(i) Is a transportation fuel, transportation fuel additive, heating oil, or jet fuel.

(ii) Meets the definition of either biodiesel or non-ester renewable diesel.

(iii) Is registered as a motor vehicle fuel or fuel additive under 40 CFR part 79, if the fuel or fuel additive is intended for use in a motor vehicle.

(2) Renewable fuel that is co-processed with petroleum is not biomass-based diesel.

Cellulosic biofuel means renewable fuel derived from any cellulose, hemi-cellulose, or lignin that has lifecycle greenhouse gas emissions that are at least 60 percent less than the baseline lifecycle greenhouse gas emissions.

Cellulosic diesel is any renewable fuel which meets both the definitions of cellulosic biofuel and biomass-based diesel, as defined in this section 80.1401. Cellulosic diesel includes heating oil and jet fuel made from cellulosic feedstocks.

Combined heat and power (CHP), also known as cogeneration, refers to industrial processes in which byproduct heat that would otherwise be released into the environment is used for process heating and/or electricity production.

Co-processed means that renewable biomass was simultaneously processed with fossil fuels or other non-renewable feedstock in the same unit or units to produce a fuel that is partially derived from renewable biomass.

Corn oil extraction means the recovery of corn oil from the thin stillage and/or the DGS produced by a dry mill corn ethanol plant, most often by mechanical separation.

Crop residue is the biomass left over from the harvesting or processing of planted crops from existing agricultural land and any biomass removed from existing agricultural land that facilitates crop management (including biomass removed from such lands in relation to invasive species control or fire management), whether or not the biomass includes any portion of a crop or crop plant.

Cropland is land used for production of crops for harvest and includes cultivated cropland, such as for row crops or close-grown crops, and non-cultivated cropland, such as for horticultural or aquatic crops.

Diesel, for the purposes of this subpart, refers to any and all of the products specified at § 80.1407(e).

Ecologically sensitive forestland means forestland that meets either of the following criteria:

(1) An ecological community with a global or state ranking of critically imperiled, imperiled or rare pursuant to a State Natural Heritage Program. For examples of such ecological communities, see "Listing of Forest Ecological Communities Pursuant to 40 CFR 80.1401; S1–S3 communities," which is number EPA–HQ–OAR–2005–0161–1034.1 in the public docket, and "Listing of Forest Ecological Communities Pursuant to 40 CFR 80.1401; G1–G2 communities," which is number EPA–HQ–OAR–2005–0161–2906.1 in the public docket. This material is available for inspection at the EPA Docket Center, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington DC. The telephone number for the Air Docket is (202) 566–1742.

(2) Old growth or late successional, characterized by trees at least 200 years in age.

EPA Moderated Transaction System, or EMTS, means a closed, EPA moderated system that provides a mechanism for screening and tracking Renewable Identification Numbers (RINs) as per § 80.1452.

Existing agricultural land is cropland, pastureland, and land enrolled in the Conservation Reserve Program (administered by the U.S. Department of Agriculture's Farm Service Agency) that was cleared or cultivated prior to December 19, 2007, and that, on December 19, 2007, was:

(1) Nonforested; and

(2) Actively managed as agricultural land or fallow, as evidenced by records which must be traceable to the land in question, which must include one of the following:

(i) Records of sales of planted crops, crop residue, or livestock, or records of

purchases for land treatments such as fertilizer, weed control, or seeding.

(ii) A written management plan for agricultural purposes.

(iii) Documented participation in an agricultural management program administered by a Federal, state, or local government agency.

(iv) Documented management in accordance with a certification program for agricultural products.

Exporter of renewable fuel means:

(1) A person that transfers any renewable fuel to a location outside the contiguous 48 states and Hawaii; and

(2) A person that transfers any renewable fuel from a location in the contiguous 48 states or Hawaii to Alaska or a United States territory, unless that state or territory has received an approval from the Administrator to opt-in to the renewable fuel program pursuant to § 80.1443.

Facility means all of the activities and equipment associated with the production of renewable fuel starting from the point of delivery of feedstock material to the point of final storage of the end product, which are located on one property, and are under the control of the same person (or persons under common control).

Fallow means cropland, pastureland, or land enrolled in the Conservation Reserve Program (administered by the U.S. Department of Agriculture's Farm Service Agency) that is intentionally left idle to regenerate for future agricultural purposes with no seeding or planting, harvesting, mowing, or treatment during the fallow period.

Forestland is generally undeveloped land covering a minimum area of 1 acre upon which the primary vegetative species are trees, including land that formerly had such tree cover and that will be regenerated and tree plantations. Tree covered areas in intensive agricultural crop production settings, such as fruit orchards or tree-covered areas in urban settings such as city parks, are not considered forestland.

Fractionation of feedstocks means a process whereby seeds are divided in various components and oils are removed prior to fermentation for the production of ethanol.

Fuel for use in an ocean-going vessel means, for this subpart only:

(1) Any marine residual fuel (whether burned in ocean waters, Great Lakes, or other internal waters);

(2) Emission Control Area (ECA) marine fuel, pursuant to §§ 80.2(ttt) and 80.510(k) (whether burned in ocean waters, Great Lakes, or other internal waters); and

(3) Any other fuel intended for use only in ocean-going vessels.

Gasoline, for the purposes of this subpart, refers to any and all of the products specified at § 80.1407(c).

Heating oil has the meaning given in § 80.2(ccc).

Importers. For the purposes of this subpart, an importer of transportation fuel or renewable fuel is any U.S. domestic person who:

(1) Brings transportation fuel or renewable fuel into the 48 contiguous states of the United States or Hawaii, from a foreign country or from an area that has not opted in to the program requirements of this subpart pursuant to § 80.1443; or

(2) Brings transportation fuel or renewable fuel into an area that has opted in to the program requirements of this subpart pursuant to § 80.1443 from a foreign country or from an area that has not opted in to the program requirements of this subpart.

Motor vehicle has the meaning given in Section 216(2) of the Clean Air Act (42 U.S.C. 7550(2)).

Naphtha means a renewable fuel or fuel blending component falling within the boiling range of gasoline.

Neat renewable fuel is a renewable fuel to which 1% or less of gasoline (as defined in this section) or diesel fuel has been added.

Non-ester renewable diesel means renewable fuel which is all of the following:

(1) Registered as a motor vehicle fuel or fuel additive under 40 CFR Part 79, if the fuel or fuel additive is intended for use in a motor vehicle.

(2) Not a mono-alkyl ester.

Nonforested land means land that is not forestland.

Nonroad vehicle has the meaning given in Section 216(11) of the Clean Air Act (42 U.S.C. 7550(11)).

Pastureland is land managed for the production of indigenous or introduced forage plants for livestock grazing or hay production, and to prevent succession to other plant types.

Planted crops are all annual or perennial agricultural crops from existing agricultural land that may be used as feedstocks for renewable fuel, such as grains, oilseeds, sugarcane, switchgrass, prairie grass, duckweed, and other species (but not including algae species or planted trees), providing that they were intentionally applied by humans to the ground, a growth medium, a pond or tank, either by direct application as seed or plant, or through intentional natural seeding or vegetative propagation by mature plants introduced or left undisturbed for that purpose.

Planted trees are trees harvested from a tree plantation.

Pre-commercial thinnings are trees, including unhealthy or diseased trees, primarily removed to reduce stocking to concentrate growth on more desirable, healthy trees, or other vegetative material that is removed to promote tree growth.

Renewable biomass means each of the following (including any incidental, de minimis contaminants that are impractical to remove and are related to customary feedstock production and transport):

(1) Planted crops and crop residue harvested from existing agricultural land cleared or cultivated prior to December 19, 2007 and that was nonforested and either actively managed or fallow on December 19, 2007.

(2) Planted trees and tree residue from a tree plantation located on non-federal land (including land belonging to an Indian tribe or an Indian individual that is held in trust by the U.S. or subject to a restriction against alienation imposed by the U.S.) that was cleared at any time prior to December 19, 2007 and actively managed on December 19, 2007.

(3) Animal waste material and animal byproducts.

(4) Slash and pre-commercial thinnings from non-federal forestland (including forestland belonging to an Indian tribe or an Indian individual, that are held in trust by the United States or subject to a restriction against alienation imposed by the United States) that is not ecologically sensitive forestland.

(5) Biomass (organic matter that is available on a renewable or recurring basis) obtained from the immediate vicinity of buildings and other areas regularly occupied by people, or of public infrastructure, in an area at risk of wildfire.

(6) Algae.

(7) Separated yard waste or food waste, including recycled cooking and trap grease, and materials described in § 80.1426(f)(5)(i).

Renewable fuel means a fuel which meets all of the requirements of paragraph (1) of this definition:

(1)(i) Fuel that is produced from renewable biomass.

(ii) Fuel that is used to replace or reduce the quantity of fossil fuel present in a transportation fuel, heating oil, or jet fuel.

(iii) Has lifecycle greenhouse gas emissions that are at least 20 percent less than baseline lifecycle greenhouse gas emissions, unless the fuel is exempt from this requirement pursuant to § 80.1403.

(2) Ethanol covered by this definition shall be denatured as required and defined in 27 CFR parts 19 through 21.

Any volume of denaturant added to the undenatured ethanol by a producer or importer in excess of 2 volume percent shall not be included in the volume of ethanol for purposes of determining compliance with the requirements under this subpart.

Renewable Identification Number (RIN), is a unique number generated to represent a volume of renewable fuel pursuant to §§ 80.1425 and 80.1426.

(1) *Gallon-RIN* is a RIN that represents an individual gallon of renewable fuel; and

(2) *Batch-RIN* is a RIN that represents multiple gallon-RINs.

Slash is the residue, including treetops, branches, and bark, left on the ground after logging or accumulating as a result of a storm, fire, delimbing, or other similar disturbance.

Small refinery, for this subpart only, means a refinery for which the average aggregate daily crude oil throughput for calendar year 2006 (as determined by dividing the aggregate throughput for the calendar year by the number of days in the calendar year) does not exceed 75,000 barrels.

Transportation fuel means fuel for use in motor vehicles, motor vehicle engines, nonroad vehicles, or nonroad engines (except for ocean-going vessels).

Tree plantation is a stand of no less than 1 acre composed primarily of trees established by hand- or machine-planting of a seed or sapling, or by coppice growth from the stump or root of a tree that was hand- or machine-planted. Tree plantations must have been cleared prior to December 19, 2007 and must have been actively managed on December 19, 2007, as evidenced by records which must be traceable to the land in question, which must include:

(1) Sales records for planted trees or tree residue together with other written documentation connecting the land in question to these purchases;

(2) Purchasing records for seeds, seedlings, or other nursery stock together with other written documentation connecting the land in question to these purchases;

(3) A written management plan for silvicultural purposes;

(4) Documentation of participation in a silvicultural program sponsored by a Federal, state or local government agency;

(5) Documentation of land management in accordance with an agricultural or silvicultural product certification program;

(6) An agreement for land management consultation with a professional forester that identifies the land in question; or

(7) Evidence of the existence and ongoing maintenance of a road system or other physical infrastructure designed and maintained for logging use, together with one of the above-mentioned documents.

Tree residue is slash and any woody residue generated during the processing of planted trees from tree plantations for use in lumber, paper, furniture or other applications, provided that such woody residue is not mixed with similar residue from trees that do not originate in tree plantations.

Yard waste is leaves, sticks, pine needles, grass and hedge clippings, and similar waste from residential, commercial, or industrial areas (but not from forestlands or tree plantations).

§ 80.1402 [Reserved]

§ 80.1403 Which fuels are not subject to the 20% GHG thresholds?

(a) For purposes of this section, the following definitions apply:

(1) *Baseline volume* means the permitted capacity or, if permitted capacity cannot be determined, the actual peak capacity of a specific renewable fuel production facility on a calendar year basis.

(2) *Permitted capacity* means 105% of the maximum permissible volume output of renewable fuel that is allowed under operating conditions specified in the most restrictive of all applicable preconstruction, construction and operating permits issued by regulatory authorities (including local, regional, state or a foreign equivalent of a state, and federal permits, or permits issued by foreign governmental agencies) that govern the construction and/or operation of the renewable fuel facility, reported as:

(i) Annual volume output on a calendar year basis; or

(ii) If the permit specifies maximum rated volume output on an hourly basis, then multiplying the hourly output by 8,322 hours per year to obtain the annual output.

(3) *Actual peak capacity* means 105% of the maximum annual volume of renewable fuels produced from a specific renewable fuel production facility on a calendar year basis.

(i) For facilities that commenced construction prior to December 19, 2007 the actual peak capacity is based on the last five calendar years prior to 2008, unless no such production exists, in which case actual peak capacity is determined pursuant to paragraph (a)(3)(ii) of this section.

(ii) For facilities that commenced construction after December 19, 2007, and are fired with natural gas, biomass, or a combination thereof, the actual peak capacity is based on any calendar year after startup during the first three years of operation.

(4) *Commence construction,* as applied to facilities that produce renewable fuel, means that:

(i) The owner or operator has all necessary preconstruction approvals or permits (as defined at 40 CFR 52.21(b)(10)), and has satisfied either of the following:

(A) Begun, or caused to begin, a continuous program of actual construction on-site (as defined in 40 CFR 52.21(b)(11)).

(B) Entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the owner or operator, to undertake a program of actual construction of the facility.

(ii) For multi-phased projects, the commencement of construction of one phase does not constitute commencement of construction of any later phase, unless each phase is mutually dependent for physical and chemical reasons only.

(b) The lifecycle greenhouse gas emissions from renewable fuels must be at least 20 percent less than baseline lifecycle greenhouse gas emissions, with the exception of the baseline volumes of renewable fuel produced from facilities described in paragraphs (c) and (d) of this section.

(c) The baseline volume of renewable fuel that is produced from facilities and any expansions, all of which commenced construction on or before December 19, 2007, shall not be subject to the requirement that lifecycle greenhouse gas emissions be at least 20 percent less than baseline lifecycle greenhouse gas emissions if the owner or operator:

(1) Did not discontinue construction for a period of 18 months after commencement of construction; and

(2) Completed construction within 36 months of commencement of construction.

(d) The baseline volume of ethanol that is produced from facilities and any expansions all of which commenced construction after December 19, 2007 and on or before December 31, 2009, shall not be subject to the requirement that lifecycle greenhouse gas emissions be at least 20 percent less than baseline lifecycle greenhouse gas emissions if such facilities are fired with natural gas, biomass, or a combination thereof at all times the facility operated between December 19, 2007 and December 31, 2009 and if:

(1) The owner or operator did not discontinue construction for a period of

18 months after commencement of construction;

(2) The owner or operator completed construction within 36 months of commencement of construction; and

(3) The baseline volume continues to be produced through processes fired with natural gas, biomass, or any combination thereof.

(e) The annual volume of renewable fuel during a calendar year from facilities described in paragraphs (c) and (d) of this section that exceeds the baseline volume shall be subject to the requirement that lifecycle greenhouse gas emissions be at least 20 percent less than baseline lifecycle greenhouse gas emissions.

(f) If there are any changes in the mix of renewable fuels produced by those facilities described in paragraph (d) of this section, only the ethanol volume (to the extent it is less than or equal to baseline volume) will not be subject to the requirement that lifecycle greenhouse gas emissions be at least 20 percent less than baseline lifecycle greenhouse gas emissions. Any party that changes the fuel mix must update their registration as specified in § 80.1450(d).

§ 80.1404 [Reserved]

§ 80.1405 What are the Renewable Fuel Standards?

(a) *Renewable Fuel Standards for 2010.*

(1) The value of the cellulosic biofuel standard for 2010 shall be 0.004 percent.

(2) The value of the biomass-based diesel standard for 2010 shall be 1.10 percent.

(3) The value of the advanced biofuel standard for 2010 shall be 0.61 percent.

(4) The value of the renewable fuel standard for 2010 shall be 8.25 percent.

(b) Beginning with the 2011 compliance period, EPA will calculate the value of the annual standards and publish these values in the **Federal Register** by November 30 of the year preceding the compliance period.

(c) EPA will calculate the annual renewable fuel percentage standards using the following equations:

$$\mathrm{Std}_{\mathrm{CB,i}} = 100\% * \frac{\mathrm{RFV}_{\mathrm{CB,i}}}{(G_i - RG_i) + (GS_i - RGS_i) - GE_i + (D_i - RD_i) + (DS_i - RDS_i) - DE_i}$$

$$\mathrm{Std}_{\mathrm{BBD,i}} = 100\% * \frac{\mathrm{RFV}_{\mathrm{BBD,i}} \times 1.5}{(G_i - RG_i) + (GS_i - RGS_i) - GE_i + (D_i - RD_i) + (DS_i - RDS_i) - DE_i}$$

$$\mathrm{Std}_{\mathrm{AB,i}} = 100\% * \frac{\mathrm{RFV}_{\mathrm{AB,i}}}{(G_i - RG_i) + (GS_i - RGS_i) - GE_i + (D_i - RD_i) + (DS_i - RDS_i) - DE_i}$$

$$\mathrm{Std}_{\mathrm{RF,i}} = 100\% * \frac{\mathrm{RFV}_{\mathrm{RF,i}}}{(G_i - RG_i) + (GS_i - RGS_i) - GE_i + (D_i - RD_i) + (DS_i - RDS_i) - DE_i}$$

Where:

$\mathrm{Std}_{\mathrm{CB,i}}$ = The cellulosic biofuel standard for year i, in percent.

$\mathrm{Std}_{\mathrm{BBD,i}}$ = The biomass-based diesel standard for year i, in percent.

$\mathrm{Std}_{\mathrm{AB,i}}$ = The advanced biofuel standard for year i, in percent.

$\mathrm{Std}_{\mathrm{RF,i}}$ = The renewable fuel standard for year i, in percent.

$\mathrm{RFV}_{\mathrm{CB,i}}$ = Annual volume of cellulosic biofuel required by section 211(o)(2)(B) of the Clean Air Act for year i, in gallons.

$\mathrm{RFV}_{\mathrm{BBD,i}}$ = Annual volume of biomass-based diesel required by section 211(o)(2)(B) of the Clean Air Act for year i, in gallons.

$\mathrm{RFV}_{\mathrm{AB,i}}$ = Annual volume of advanced biofuel required by section 211(o)(2)(B) of the Clean Air Act for year i, in gallons.

$\mathrm{RFV}_{\mathrm{RF,i}}$ = Annual volume of renewable fuel required by section 211(o)(2)(B) of the Clean Air Act for year i, in gallons.

G_i = Amount of gasoline projected to be used in the 48 contiguous states and Hawaii, in year i, in gallons.

D_i = Amount of diesel projected to be used in the 48 contiguous states and Hawaii, in year i, in gallons.

RG_i = Amount of renewable fuel blended into gasoline that is projected to be consumed in the 48 contiguous states and Hawaii, in year i, in gallons.

RD_i = Amount of renewable fuel blended into diesel that is projected to be consumed in the 48 contiguous states and Hawaii, in year i, in gallons.

GS_i = Amount of gasoline projected to be used in Alaska or a U.S. territory, in year i, if the state or territory has opted-in or opts-in, in gallons.

RGS_i = Amount of renewable fuel blended into gasoline that is projected to be consumed in Alaska or a U.S. territory, in year i, if the state or territory opts-in, in gallons.

DS_i = Amount of diesel projected to be used in Alaska or a U.S. territory, in year i, if the state or territory has opted-in or opts-in, in gallons.

RDS_i = Amount of renewable fuel blended into diesel that is projected to be consumed in Alaska or a U.S. territory, in year i, if the state or territory opts-in, in gallons.

GE_i = The amount of gasoline projected to be produced by exempt small refineries and small refiners, in year i, in gallons in any year they are exempt per §§ 80.1441 and 80.1442, respectively. Assumed to equal $0.119*(G_i\text{-}RG_i)$.

DE_i = The amount of diesel fuel projected to be produced by exempt small refineries and small refiners in year i, in gallons, in any year they are exempt per §§ 80.1441 and 80.1442, respectively. Assumed to equal $0.152*(D_i\text{-}RD_i)$.

(d) The 2010 price for cellulosic biofuel waiver credits is $1.56 per waiver credit.

§ 80.1406 Who is an obligated party under the RFS program?

(a)(1) An *obligated party* is any refiner that produces gasoline or diesel fuel within the 48 contiguous states or Hawaii, or any importer that imports gasoline or diesel fuel into the 48 contiguous states or Hawaii during a compliance period. A party that simply blends renewable fuel into gasoline or diesel fuel, as defined in § 80.1407(c) or (e), is not an obligated party.

(2) If the Administrator approves a petition of Alaska or a United States territory to opt-in to the renewable fuel program under the provisions in § 80.1443, then "obligated party" shall also include any refiner that produces gasoline or diesel fuel within that state or territory, or any importer that imports gasoline or diesel fuel into that state or territory.

(b) For each compliance period starting with 2010, an obligated party is required to demonstrate, pursuant to § 80.1427, that it has satisfied the Renewable Volume Obligations for that compliance period, as specified in § 80.1407(a).

(c) *Aggregation of facilities.*

(1) Except as provided in paragraph (c)(2) of this section, an obligated party may comply with the requirements of paragraph (b) of this section for all of its refineries in the aggregate, or for each refinery individually.

(2) An obligated party that carries a deficit into year i+1 must use the same approach to aggregation of facilities in year i+1 as it did in year i.

(d) An obligated party must comply with the requirements of paragraph (b) of this section for all of its imported gasoline or diesel fuel in the aggregate.

(e) An obligated party that is both a refiner and importer must comply with the requirements of paragraph (b) of this section for its imported gasoline or diesel fuel separately from gasoline or diesel fuel produced by its domestic refinery or refineries.

(f) Where a refinery or import facility is jointly owned by two or more parties, the requirements of paragraph (b) of this section may be met by one of the joint owners for all of the gasoline or diesel fuel produced/imported at the facility, or each party may meet the requirements of paragraph (b) of this section for the portion of the gasoline or diesel fuel that it produces or imports, as long as all of the gasoline or diesel fuel produced/imported at the facility is accounted for in determining the Renewable Volume Obligations under § 80.1407.

(g) The requirements in paragraph (b) of this section apply to the following compliance periods: Beginning in 2010, and every year thereafter, the compliance period is January 1 through December 31.

§ 80.1407 How are the Renewable Volume Obligations calculated?

(a) The Renewable Volume Obligations for an obligated party are determined according to the following formulas:

(1) *Cellulosic biofuel.*

$RVO_{CB,i} = (RFStd_{CB,i} * (GV_i + DV_i)) + D_{CB,i-1}$

Where:

$RVO_{CB,i}$ = The Renewable Volume Obligation for cellulosic biofuel for an obligated party for calendar year i, in gallons.

$RFStd_{CB,i}$ = The standard for cellulosic biofuel for calendar year i, determined by EPA pursuant to § 80.1405, in percent.

GV_i = The non-renewable gasoline volume, determined in accordance with paragraphs (b), (c), and (f) of this section, which is produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.

DV_i = The non-renewable diesel volume, determined in accordance with paragraphs (d), (e), and (f) of this section, produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.

$D_{CB,i-1}$ = Deficit carryover from the previous year for cellulosic biofuel, in gallons.

(2) *Biomass-based diesel.*

$RVO_{BBD,i} = (RFStd_{BBD,i} * (GV_i + DV_i)) + D_{BBD,i-1}$

Where:

$RVO_{BBD,i}$ = The Renewable Volume Obligation for biomass-based diesel for an obligated party for calendar year i, in gallons.

$RFStd_{BBD,i}$ = The standard for biomass-based diesel for calendar year i, determined by EPA pursuant to § 80.1405, in percent.

GV_i = The non-renewable gasoline volume, determined in accordance with paragraphs (b), (c), and (f) of this section, which is produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.

DV_i = The non-renewable diesel volume, determined in accordance with paragraphs (d), (e), and (f) of this section, produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.

$D_{BBD,i-1}$ = Deficit carryover from the previous year for biomass-based diesel, in gallons.

(3) *Advanced biofuel.*

$RVO_{AB,i} = (RFStd_{AB,i} * (GV_i + DV_i)) + D_{AB,i-1}$

Where:

$RVO_{AB,i}$ = The Renewable Volume Obligation for advanced biofuel for an obligated party for calendar year i, in gallons.

$RFStd_{AB,i}$ = The standard for advanced biofuel for calendar year i, determined by EPA pursuant to § 80.1405, in percent.

GV_i = The non-renewable gasoline volume, determined in accordance with paragraphs (b), (c), and (f) of this section, which is produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.

DV_i = The non-renewable diesel volume, determined in accordance with paragraphs (d), (e), and (f) of this section, produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.

$D_{AB,i-1}$ = Deficit carryover from the previous year for advanced biofuel, in gallons.

(4) *Renewable fuel.*

$RVO_{RF,i} = (RFStd_{RF,i} * (GV_i + DV_i)) + D_{RF,i-1}$

Where:

$RVO_{RF,i}$ = The Renewable Volume Obligation for renewable fuel for an obligated party for calendar year i, in gallons.

$RFStd_{RF,i}$ = The standard for renewable fuel for calendar year i, determined by EPA pursuant to § 80.1405, in percent.

GV_i = The non-renewable gasoline volume, determined in accordance with paragraphs (b), (c), and (f) of this section, which is produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.

DV_i = The non-renewable diesel volume, determined in accordance with paragraphs (d), (e), and (f) of this section, produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.

$D_{RF,i-1}$ = Deficit carryover from the previous year for renewable fuel, in gallons.

(b) The non-renewable gasoline volume, GV_i, for an obligated party for a given year as specified in paragraph (a) of this section is calculated as follows:

$$GV_i = \sum_{x=1}^{n} G_x - \sum_{y=1}^{m} RBG_y$$

Where:

x = Individual batch of gasoline produced or imported in calendar year i.

n = Total number of batches of gasoline produced or imported in calendar year i.

G_x = Volume of batch x of gasoline produced or imported, as defined in paragraph (c) of this section, in gallons.

y = Individual batch of renewable fuel blended into gasoline in calendar year i.

m = Total number of batches of renewable fuel blended into gasoline in calendar year i.

RBG_y = Volume of batch y of renewable fuel blended into gasoline, in gallons.

(c) Except as specified in paragraph (f) of this section, all of the following products that are produced or imported during a compliance period, collectively called "gasoline" for the purposes of this section (unless otherwise specified), are to be included (but not double-counted) in the volume used to calculate a party's Renewable Volume Obligations under paragraph (a) of this section, except as provided in paragraph (f) of this section:

(1) Reformulated gasoline, whether or not renewable fuel is later added to it.

(2) Conventional gasoline, whether or not renewable fuel is later added to it.

(3) Reformulated gasoline blendstock that becomes finished reformulated gasoline upon the addition of oxygenate (RBOB).

(4) Conventional gasoline blendstock that becomes finished conventional gasoline upon the addition of oxygenate (CBOB).

(5) Blendstock (including butane and gasoline treated as blendstock (GTAB))

that has been combined with other blendstock and/or finished gasoline to produce gasoline.

(6) Any gasoline, or any unfinished gasoline that becomes finished gasoline upon the addition of oxygenate, that is produced or imported to comply with a state or local fuels program.

(d) The diesel non-renewable volume, DV_i, for an obligated party for a given year as specified in paragraph (a) of this section is calculated as follows:

$$DV_i = \sum_{x=1}^{n} D_x - \sum_{y=1}^{m} RBD_y$$

Where:

x = Individual batch of diesel produced or imported in calendar year i.

n = Total number of batches of diesel produced or imported in calendar year i.

D_x = Volume of batch x of diesel produced or imported, as defined in paragraph (e) of this section, in gallons.

y = Individual batch of renewable fuel blended into diesel in calendar year i.

m = Total number of batches of renewable fuel blended into diesel in calendar year i.

RBD_y = Volume of batch y of renewable fuel blended into diesel, in gallons.

(e) Except as specified in paragraph (f) of this section, all products meeting the definition of *MVNRLM diesel fuel* at § 80.2(qqq) that are produced or imported during a compliance period, collectively called "diesel fuel" for the purposes of this section (unless otherwise specified), are to be included (but not double-counted) in the volume used to calculate a party's Renewable Volume Obligations under paragraph (a) of this section.

(f) The following products are not included in the volume of gasoline or diesel fuel produced or imported used to calculate a party's Renewable Volume Obligations according to paragraph (a) of this section:

(1) Any renewable fuel as defined in § 80.1401.

(2) Blendstock that has not been combined with other blendstock, finished gasoline, or diesel to produce gasoline or diesel.

(3) Gasoline or diesel fuel produced or imported for use in Alaska, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas, unless the area has opted into the RFS program under § 80.1443.

(4) Gasoline or diesel fuel produced by a small refinery that has an exemption under § 80.1441 or an approved small refiner that has an exemption under § 80.1442.

(5) Gasoline or diesel fuel exported for use outside the 48 United States and Hawaii, and gasoline or diesel fuel exported for use outside Alaska, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas, if the area has opted into the RFS program under § 80.1443.

(6) For blenders, the volume of finished gasoline, finished diesel fuel, RBOB, or CBOB to which a blender adds blendstocks.

(7) The gasoline or diesel fuel portion of transmix produced by a transmix processor, or the transmix blended into gasoline or diesel fuel by a transmix blender, under § 80.84.

(8) Any gasoline or diesel fuel that is not transportation fuel.

§§ 80.1408–80.1414 [Reserved]

§ 80.1415 How are equivalence values assigned to renewable fuel?

(a)(1) Each gallon of a renewable fuel, or gallon equivalent pursuant to paragraph (c) of this section, shall be assigned an equivalence value by the producer or importer pursuant to paragraph (b) or (c) of this section.

(2) The equivalence value is a number that is used to determine how many gallon-RINs can be generated for a batch of renewable fuel according to § 80.1426.

(b) Equivalence values shall be assigned for certain renewable fuels as follows:

(1) Ethanol which is denatured shall have an equivalence value of 1.0.

(2) Biodiesel (mono-alkyl ester) shall have an equivalence value of 1.5.

(3) Butanol shall have an equivalence value of 1.3.

(4) Non-ester renewable diesel with a lower heating value of at least 123,500 Btu/gal shall have an equivalence value of 1.7.

(5) A gallon of renewable fuel represents 77,000 Btu (lower heating value) of biogas, and biogas shall have an equivalence value of 1.0.

(6) A gallon of renewable fuel represents 22.6 kW-hr of electricity, and electricity shall have an equivalence value of 1.0.

(7) For all other renewable fuels, a producer or importer shall submit an application to the Agency for an equivalence value following the provisions of paragraph (c) of this section. A producer or importer may also submit an application for an alternative equivalence value pursuant to paragraph (c) if the renewable fuel is listed in this paragraph (b), but the producer or importer has reason to believe that a different equivalence value than that listed in this paragraph (b) is warranted.

(c) *Calculation of new equivalence values.*

(1) The equivalence value for renewable fuels described in paragraph (b)(7) of this section shall be calculated using the following formula:

$$EV = (R/0.972) * (EC/77{,}000)$$

Where:

EV = Equivalence Value for the renewable fuel, rounded to the nearest tenth.

R = Renewable content of the renewable fuel. This is a measure of the portion of a renewable fuel that came from a renewable source, expressed as a percent, on an energy basis.

EC = Energy content of the renewable fuel, in Btu per gallon (lower heating value).

(2) The application for an equivalence value shall include a technical justification that includes a description of the renewable fuel, feedstock(s) used to make it, and the production process.

(3) The Agency will review the technical justification and assign an appropriate equivalence value to the renewable fuel based on the procedure in this paragraph (c).

(4) Applications for equivalence values must be sent to one of the following addresses:

(i) *For U.S. Mail:* U.S. EPA, Attn: RFS2 Program Equivalence Value Application, 6406J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

(ii) *For overnight or courier services:* U.S. EPA, Attn: RFS2 Program Equivalence Value Application, 6406J, 1310 L Street, NW., 6th floor, Washington, DC 20005. (202) 343–9038.

(5) All applications required under this section shall be submitted on forms and following procedures prescribed by the Administrator.

§ 80.1416 Petition process for evaluation of new renewable fuels pathways.

(a)(1) A party may petition EPA to assign a D code for a new renewable fuel pathway that has not been evaluated by EPA to determine if it qualifies for a D code as defined in § 80.1426(f), pursuant to this section. A D code must be approved prior to the generation of RINs for the fuel in question.

(2) For renewable fuel pathways that have been determined by EPA not to qualify for a D code as defined in § 80.1426(f), parties who can document significant differences between the fuel production processes considered in this rule and their fuel pathway production processes may petition EPA to use a D code pursuant to this section.

(3) Parties may petition EPA to qualify their renewable fuel pathway for a different D code than the D code assigned to the fuel pathway as defined in § 80.1426(f) if the parties can document significant differences

between the fuel production processes considered in this rule and their fuel pathway production processes, pursuant to this section.

(b)(1) Any petition under paragraph (a) of this section shall include all the following:

(i) The information specified under § 80.76.

(ii) A technical justification that includes a description of the renewable fuel, feedstock(s) used to make it, and the production process. The justification must include process modeling flow charts.

(iii) A mass balance for the pathway, including feedstocks, fuels produced, co-products, and waste materials production.

(iv) Information on co-products, including their expected use and market value.

(v) An energy balance for the pathway, including a list of any energy and process heat inputs and outputs used in the pathway, including such sources produced off site or by another entity.

(vi) Any other relevant information, including information pertaining to energy saving technologies or other process improvements.

(vii) The Administrator may ask for additional information to complete the lifecycle greenhouse gas assessment of the new fuel or pathway.

(2) For those companies who use a feedstock not previously evaluated by EPA under this subpart, the petition must include all the following in addition to the requirements in paragraph (b)(1) of this section:

(i) Type of feedstock and description of how it meets the definition of renewable biomass.

(ii) Market value of the feedstock.

(iii) List of other uses for the feedstock.

(iv) List of chemical inputs needed to produce the renewable biomass source of the feedstock and prepare the renewable biomass for processing into feedstock.

(v) Identify energy needed to obtain the feedstock and deliver it to the facility. If applicable, identify energy needed to plant and harvest the renewable biomass source of the feedstock and modify the source to create the feedstock.

(vi) Current and projected yields of the feedstock that will be used to produce the fuels.

(vii) The Administrator may ask for additional information to complete the lifecycle Greenhouse Gas assessment of the new fuel or pathway.

(c)(1) A company may only submit one petition per pathway. If EPA determines the petition to be incomplete, then the company may resubmit.

(2) The petition must be signed and certified as meeting all the applicable requirements of this subpart by the responsible corporate officer of the applicant organization.

(3) If EPA determines that the petition is incomplete then EPA will notify the applicant in writing that the petition is incomplete and will not be reviewed further. However, an amended petition that corrects the omission may be re-submitted for EPA review.

(4) If the fuel or pathway described in the petition does not meet the definitions in § 80.1401 of renewable fuel, advanced biofuel, cellulosic biofuel, or biomass-based diesel, then EPA will notify the applicant in writing that the petition is denied and will not be reviewed further.

(d) The petition under this section shall be submitted on forms and following procedures as prescribed by EPA.

§§ 80.1417–80.1424 [Reserved]

§ 80.1425 Renewable Identification Numbers (RINs).

Each RIN is a 38-character numeric code of the following form:

KYYYYCCCCFFFFFBBBBBRRD SSSSSSSSEEEEEEEE

(a) K is a number identifying the type of RIN as follows:

(1) K has the value of 1 when the RIN is assigned to a volume of renewable fuel pursuant to § 80.1426(e) and § 80.1428(a).

(2) K has the value of 2 when the RIN has been separated from a volume of renewable fuel pursuant to § 80.1429.

(b) YYYY is the calendar year in which the RIN was generated.

(c) CCCC is the registration number assigned, according to § 80.1450, to the producer or importer of the batch of renewable fuel.

(d) FFFFF is the registration number assigned, according to § 80.1450, to the facility at which the batch of renewable fuel was produced or imported.

(e) BBBBB is a serial number assigned to the batch which is chosen by the producer or importer of the batch such that no two batches have the same value in a given calendar year.

(f) RR is a number representing 10 times the equivalence value of the renewable fuel as specified in § 80.1415.

(g) D is a number determined according to § 80.1426(f) and identifying the type of renewable fuel, as follows:

(1) D has the value of 3 to denote fuel categorized as cellulosic biofuel.

(2) D has the value of 4 to denote fuel categorized as biomass-based diesel.

(3) D has the value of 5 to denote fuel categorized as advanced biofuel.

(4) D has the value of 6 to denote fuel categorized as renewable fuel.

(5) D has the value of 7 to denote fuel categorized as cellulosic diesel.

(h) SSSSSSSS is a number representing the first gallon-RIN associated with a batch of renewable fuel.

(i) EEEEEEEE is a number representing the last gallon-RIN associated with a batch of renewable fuel. EEEEEEEE will be identical to SSSSSSSS if the batch-RIN represents a single gallon-RIN. Assign the value of EEEEEEEE as described in § 80.1426.

§ 80.1426 How are RINs generated and assigned to batches of renewable fuel by renewable fuel producers or importers?

(a) *General requirements.*

(1) To the extent permitted under paragraphs (b) and (c) of this section, producers and importers of renewable fuel must generate RINs to represent that fuel if the fuel:

(i) Qualifies for a D code pursuant to § 80.1426(f), or EPA has approved a petition for use of a D code pursuant to § 80.1416; and

(ii) Is demonstrated to be produced from renewable biomass pursuant to the reporting requirements of § 80.1451 and the recordkeeping requirements of § 80.1454.

(A) Feedstocks meeting the requirements of renewable biomass through the aggregate compliance provision at § 80.1454(g) are deemed to be renewable biomass.

(B) [Reserved]

(2) To generate RINs for imported renewable fuel, including any renewable fuel contained in imported transportation fuel, importers must obtain information from a foreign producer that is registered pursuant to § 80.1450 sufficient to make the appropriate determination regarding the applicable D code and compliance with the renewable biomass definition for each imported batch for which RINs are generated.

(3) A party generating a RIN shall specify the appropriate numerical values for each component of the RIN in accordance with the provisions of § 80.1425(a) and paragraph (f) of this section.

(b) *Regional applicability.*

(1) Except as provided in paragraph (c) of this section, a RIN must be generated by a renewable fuel producer or importer for a batch of renewable fuel that satisfies the requirements of paragraph (a)(1) of this section if it is produced or imported for use as transportation fuel, heating oil, or jet

fuel in the 48 contiguous states or Hawaii.

(2) If the Administrator approves a petition of Alaska or a United States territory to opt-in to the renewable fuel program under the provisions in § 80.1443, then the requirements of paragraph (b)(1) of this section shall also apply to renewable fuel produced or imported for use as transportation fuel, heating oil, or jet fuel in that state or territory beginning in the next calendar year.

(c) *Cases in which RINs are not generated.*

(1) Fuel producers and importers may not generate RINs for fuel that is not designated or intended for use as transportation fuel, heating oil, or jet fuel.

(2) *Small producer/importer threshold.* Pursuant to § 80.1455(a) and (b), renewable fuel producers that produce less than 10,000 gallons a year of renewable fuel, and importers that import less than 10,000 gallons a year of renewable fuel, are not required to generate and assign RINs to batches of renewable fuel that that satisfy the requirements of paragraph (a)(1) of this section that they produce or import.

(3) *Temporary new producer threshold.* Pursuant to § 80.1455(c) and (d), renewable fuel producers that produce less than 125,000 gallons a year of renewable fuel are not required to generate and assign RINs to batches of renewable fuel that satisfy the requirements of paragraph (a)(1) of this section and that are produced from a new facility, for a maximum of three years beginning with the calendar year in which the production facility produces its first gallon of renewable fuel.

(4) Importers shall not generate RINs for fuel imported from a foreign producer that is not registered with EPA as required in § 80.1450.

(5) Importers shall not generate RINs for renewable fuel that has already been assigned RINs by a registered foreign producer.

(6) A party is prohibited from generating RINs for a volume of fuel that it produces if:

(i) The fuel does not meet the requirements of paragraph (a)(1) of this section; or

(ii) The fuel has been produced from a chemical conversion process that uses another renewable fuel as a feedstock, the renewable fuel used as a feedstock was produced by another party, and RINs with a K code of 1 were received with the renewable fuel.

(A) Parties who produce renewable fuel made from a feedstock which itself was a renewable fuel received with RINs, shall assign the original RINs to the new renewable fuel.

(B) [Reserved]

(d)(1) *Definition of batch.* For the purposes of this section and § 80.1425, a "batch of renewable fuel" is a volume of renewable fuel that has been assigned a unique identifier within a calendar year by the producer or importer of the renewable fuel in accordance with the provisions of this section and § 80.1425.

(i) The number of gallon-RINs generated for a batch of renewable fuel may not exceed 99,999,999.

(ii) A batch of renewable fuel cannot represent renewable fuel produced or imported in excess of one calendar month.

(2) Multiple gallon-RINs generated to represent a given volume of renewable fuel can be represented by a single batch-RIN through the appropriate designation of the RIN volume codes SSSSSSSS and EEEEEEEE.

(i) The value of SSSSSSSS in the batch-RIN shall be 00000001 to represent the first gallon-RIN associated with the volume of renewable fuel.

(ii) The value of EEEEEEEE in the batch-RIN shall represent the last gallon-RIN associated with the volume of renewable fuel, based on the RIN volume determined pursuant to paragraph (f) of this section.

(iii) Under § 80.1452, RIN volumes will be managed by EMTS. RIN codes SSSSSSSS and EEEEEEEE do not have a role in EMTS.

(e) *Assignment of RINs to batches.*

(1) The producer or importer of renewable fuel must assign all RINs generated to volumes of renewable fuel.

(2) A RIN is assigned to a volume of renewable fuel when ownership of the RIN is transferred along with the transfer of ownership of the volume of renewable fuel, pursuant to § 80.1428(a).

(3) All assigned RINs shall have a K code value of 1.

(f) *Generation of RINs.*

(1) *Applicable pathways.* D codes shall be used in RINs generated by producers or importers of renewable fuel according to the pathways listed in Table 1 to this section, or as approved by the Administrator. In choosing an appropriate D code, producers and importers may disregard any incidental, de minimis feedstock contaminants that are impractical to remove and are related to customary feedstock production and transport.

TABLE 1 TO § 80.1426 APPLICABLE D CODES FOR EACH FUEL PATHWAY FOR USE IN GENERATING RINS

Fuel type	Feedstock	Production process requirements	D-Code
Ethanol	Corn starch	All of the following: Drymill process, using natural gas, biomass, or biogas for process energy and at least two advanced technologies from Table 2 to this section.	6
Ethanol	Corn starch	All of the following: Dry mill process, using natural gas, biomass, or biogas for process energy and at least one of the advanced technologies from Table 2 to this section plus drying no more than 65% of the distillers grains with solubles it markets annually.	6
Ethanol	Corn starch	All of the following: Dry mill process, using natural gas, biomass, or biogas for process energy and drying no more than 50% of the distillers grains with solubles it markets annually.	6
Ethanol	Corn starch	Wet mill process using biomass or biogas for process energy.	6
Ethanol	Starches from agricultural residues and annual covercrops.	Fermentation using natural gas, biomass, or biogas for process energy.	6

TABLE 1 TO § 80.1426 APPLICABLE D CODES FOR EACH FUEL PATHWAY FOR USE IN GENERATING RINS—Continued

Fuel type	Feedstock	Production process requirements	D-Code
Biodiesel, and renewable diesel.	Soy bean oil; Oil from annual covercrops; Algal oil; Biogenic waste oils/fats/greases; Non-food grade corn oil.	One of the following: Trans-Esterification Hydrotreating Excluding processes that co-process renewable biomass and petroleum.	4
Biodiesel, and renewable diesel.	Soy bean oil; Oil from annual covercrops; Algal oil; Biogenic waste oils/fats/greases; Non-food grade corn oil.	One of the following: Trans-Esterification Hydrotreating Includes only processes that co-process renewable biomass and petroleum.	5
Ethanol	Sugarcane	Fermentation	5
Ethanol	Cellulosic Biomass from agricultural residues, slash, forest thinnings and forest product residues, annual covercrops; switchgrass, and miscanthus; cellulosic components of separated yard wastes; cellulosic components of separated food wastes; and cellulosic components of separated MSW.	Any	3
Cellulosic Diesel, Jet Fuel and Heating Oil.	Cellulosic Biomass from agricultural residues, slash, forest thinnings and forest product residues, annual covercrops, switchgrass, and miscanthus; cellulosic components of separated yard wastes; cellulosic components of separated food wastes; and cellulosic components of separated MSW.	Any	7
Butanol	Corn starch	Fermentation; dry mill using natural gas, biomass, or biogas for process energy.	6
Cellulosic Naphtha	Cellulosic Biomass from agricultural residues, slash, forest thinnings and forest product residues, annual covercrops, switchgrass, and miscanthus; cellulosic components of separated yard wastes; cellulosic components of separated food wastes; and cellulosic components of separated MSW.	Fischer-Tropsch process	3
Ethanol, renewable diesel, jet fuel, heating oil, and naphtha.	The non-cellulosic portions of separated food wastes.	Any	5
Biogas	Landfills, sewage and waste treatment plants, manure digesters.	Any	5

TABLE 2 TO § 80.1426—ADVANCED TECHNOLOGIES

Corn oil fractionation.
Corn oil extraction.
Membrane separation.
Raw starch hydrolysis.
Combined heat and power.

(2) *Renewable fuel that can be described by a single pathway.*

(i) The number of gallon-RINs that shall be generated for a batch of renewable fuel by a producer or importer for renewable fuel that can be described by a single pathway shall be equal to a volume calculated according to the following formula:

$V_{RIN} = EV * V_s$

Where:

V_{RIN} = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for the batch.

EV = Equivalence value for the batch of renewable fuel per § 80.1415.

V_s = Standardized volume of the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

(ii) The D code that shall be used in the RINs generated shall be the D code specified in Table 1 to this section, or a D code as approved by the Administrator, which corresponds to the pathway that describes the producer's operations.

(3) *Renewable fuel that can be described by two or more pathways.*

(i) The D codes that shall be used in the RINs generated by a producer or importer whose renewable fuel can be described by two or more pathways shall be the D codes specified in Table 1 to this section, or D codes as approved by the Administrator, which correspond to the pathways that describe the renewable fuel throughout that calendar year.

(ii) If all the pathways describing the producer's operations have the same D code and each batch is of a single fuel type, then that D code shall be used in all the RINs generated and the number of gallon-RINs that shall be generated for a batch of renewable fuel shall be equal to a volume calculated according to the following formula:

$V_{RIN} = EV * V_s$

Where:

V_{RIN} = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for the batch.

EV = Equivalence value for the batch of renewable fuel per § 80.1415.

V_s = Standardized volume of the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

(iii) If all the pathways describing the producer's operations have the same D code but individual batches are comprised of a mixture of fuel types with different equivalence values, then that D code shall be used in all the RINs generated and the number of gallon-RINs that shall be generated for a batch of renewable fuel shall be equal to a volume calculated according to the following formula:

$V_{RIN} = \Sigma(EV_i * V_{s,i})$

Where:

V_{RIN} = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for the batch.

EV_i = Equivalence value for fuel type i in the batch of renewable fuel per § 80.1415.

$V_{s,i}$ = Standardized volume of fuel type i in the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

(iv) If the pathway applicable to a producer changes on a specific date, such that one pathway applies before the date and another pathway applies on and after the date, and each batch is of a single fuel type, then the applicable D code and batch identifier used in generating RINs must change on the date that the change in pathway occurs and the number of gallon-RINs that shall be generated for a batch of renewable fuel shall be equal to a volume calculated according to the following formula:

$$V_{RIN} = EV * V_s$$

Where:

V_{RIN} = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for a batch with a single applicable D code.

EV = Equivalence value for the batch of renewable fuel per § 80.1415.

V_s = Standardized volume of the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

(v) If a producer produces batches that are comprised of a mixture of fuel types with different equivalence values and different applicable D codes, then separate values for V_{RIN} shall be calculated for each category of renewable fuel according to formulas in Table 3 to this section. All batch-RINs thus generated shall be assigned to unique batch identifiers for each portion of the batch with a different D code.

TABLE 3 TO § 80.1426—NUMBER OF GALLON-RINS TO ASSIGN TO BATCH-RINS WITH D CODES DEPENDENT ON FUEL TYPE

D code to use in batch-RIN	Number of gallon-RINs
D = 3	$V_{RIN,\ CB} = EV_{CB} * V_{s,CB}$
D = 4	$V_{RIN,\ BBD} = EV_{BBD} * V_{s,BBD}$
D = 5	$V_{RIN,\ AB} = EV_{AB} * V_{s,AB}$
D = 6	$V_{RIN,\ RF} = EV_{RF} * V_{s,RF}$
D = 7	$V_{RIN,\ CD} = EV_{CD} * V_{s,CD}$

Where:

$V_{RIN,CB}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for the cellulosic biofuel portion of the batch with a D code of 3.

$V_{RIN,BBD}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for the biomass-based diesel portion of the batch with a D code of 4.

$V_{RIN,AB}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for the advanced biofuel potion of the batch with a D code of 5.

$V_{RIN,RF}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for the renewable fuel potion of the batch with a D code of 6.

$V_{RIN,CD}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for the cellulosic diesel portion of the batch with a D code of 7.

EV_{CB} = Equivalence value for the cellulosic biofuel portion of the batch per § 80.1415.

EV_{BBD} = Equivalence value for the biomass-based diesel portion of the batch per § 80.1415.

EV_{AB} = Equivalence value for the advanced biofuel portion of the batch per § 80.1415.

EV_{RF} = Equivalence value for the renewable fuel portion of the batch per § 80.1415.

EV_{CD} = Equivalence value for the cellulosic diesel portion of the batch per § 80.1415.

$V_{s,CB}$ = Standardized volume at 60 °F of the portion of the batch that must be assigned a D code of 3, in gallons, calculated in accordance with paragraph (f)(8) of this section.

$V_{s,BBD}$ = Standardized volume at 60 °F of the portion of the batch that must be assigned a D code of 4, in gallons, calculated in accordance with paragraph (f)(8) of this section.

$V_{s,AB}$ = Standardized volume at 60 °F of the portion of the batch that must be assigned a D code of 5, in gallons, calculated in accordance with paragraph (f)(8) of this section.

$V_{s,RF}$ = Standardized volume at 60 °F of the portion of the batch that must be assigned a D code of 6, in gallons, calculated in accordance with paragraph (f)(8) of this section.

$V_{s,CD}$ = Standardized volume at 60 °F of the portion of the batch that must be assigned a D code of 7, in gallons, calculated in accordance with paragraph (f)(8) of this section.

(vi) If a producer produces a single type of renewable fuel using two or more different feedstocks which are processed simultaneously, and each batch is comprised of a single type of fuel, then the number of gallon-RINs that shall be generated for a batch of renewable fuel and assigned a particular D code shall be determined according to the formulas in Table 4 to this section.

Table 4 to §80.1426

Number of gallon-RINs to assign to batch-RINs with D codes dependent on feedstock

D code to use in batch-RIN	Number of gallon-RINs
D = 3	$V_{RIN,CB} = EV * V_s * \left(\frac{FE_3}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}\right)$
D = 4	$V_{RIN,BBD} = EV * V_s * \left(\frac{FE_4}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}\right)$
D = 5	$V_{RIN,AB} = EV * V_s * \left(\frac{FE_5}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}\right)$
D = 6	$V_{RIN,RF} = EV * V_s * \left(\frac{FE_6}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}\right)$
D = 7	$V_{RIN,CD} = EV * V_s * \left(\frac{FE_7}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}\right)$

Where:

$V_{RIN,CB}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for a batch of cellulosic biofuel with a D code of 3.

$V_{RIN,BBD}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for a batch of biomass-based diesel with a D code of 4.

$V_{RIN,AB}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for a batch of advanced biofuel with a D code of 5.

$V_{RIN,RF}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for a batch of renewable fuel with a D code of 6.

$V_{RIN,CD}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for a batch of cellulosic diesel with a D code of 7.

EV = Equivalence value for the renewable fuel per § 80.1415.

V_s = Standardized volume of the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

FE_3 = Feedstock energy from all feedstocks whose pathways have been assigned a D code of 3 under Table 1 to this section, or a D code of 3 as approved by the Administrator, in Btu.

FE_4 = Feedstock energy from all feedstocks whose pathways have been assigned a D code of 4 under Table 1 to this section, or a D code of 4 as approved by the Administrator, in Btu.

FE_5 = Feedstock energy from all feedstocks whose pathways have been assigned a D code of 5 under Table 1 to this section, or a D code of 5 as approved by the Administrator, in Btu.

FE_6 = Feedstock energy from all feedstocks whose pathways have been assigned a D code of 6 under Table 1 to this section, or a D code of 6 as approved by the Administrator, in Btu.

FE_7 = Feedstock energy from all feedstocks whose pathways have been assigned a D code of 7 under Table 1 to this section, or a D code of 7 as approved by the Administrator, in Btu.

Feedstock energy values, FE, shall be calculated according to the following formula:

$$FE = M * (1 - m) * CF * E$$

Where:

FE = Feedstock energy, in Btu.

M = Mass of feedstock, in pounds, measured on a daily or per-batch basis.

m = Average moisture content of the feedstock, in mass percent.

CF = Converted Fraction in annual average mass percent, representing that portion of the feedstock that is converted into renewable fuel by the producer.

E = Energy content of the components of the feedstock that are converted to renewable fuel, in annual average Btu/lb, determined according to paragraph (f)(7) of this section.

(4) *Renewable fuel that is produced by co-processing renewable biomass and non-renewable feedstocks simultaneously to produce a transportation fuel that is partially renewable.*

(i) The number of gallon-RINs that shall be generated for a batch of partially renewable transportation fuel shall be equal to a volume V_{RIN} calculated according to Method A or Method B.

(A) *Method A.*

(*1*) V_{RIN} shall be calculated according to the following formula:

$$V_{RIN} = EV * V_s * FE_R/(FE_R + FE_{NR})$$

Where:

V_{RIN} = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for the batch.

EV = Equivalence value for the batch of renewable fuel per § 80.1415.

V_s = Standardized volume of the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

FE_R = Feedstock energy from renewable biomass used to make the transportation fuel, in Btu.

FE_{NR} = Feedstock energy from non-renewable feedstocks used to make the transportation fuel, in Btu.

(*2*) The value of FE for use in paragraph (f)(4)(i)(A)(*1*) of this section shall be calculated from the following formula:

$$FE = M * (1 - m) * CF * E$$

FE = Feedstock energy, in Btu.

M = Mass of feedstock, in pounds, measured on a daily or per-batch basis.

m = Average moisture content of the feedstock, in mass percent.

CF = Converted fraction in annual average mass percent, representing that portion of the feedstock that is converted into transportation fuel by the producer.

E = Energy content of the components of the feedstock that are converted to fuel, in annual average Btu/lb, determined according to paragraph (f)(7) of this section.

(B) *Method B.* V_{RIN} shall be calculated according to the following formula:

$$V_{RIN} = EV * V_s * R$$

Where:

V_{RIN} = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for the batch.

EV = Equivalence value for the batch of renewable fuel per § 80.1415.

V_s = Standardized volume of the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

R = The renewable fraction of the fuel as measured by a carbon-14 dating test method as provided in paragraph (f)(9) of this section.

(ii) The D code that shall be used in the RINs generated to represent partially renewable transportation fuel shall be the D code specified in Table 1 to this section, or a D code as approved by the Administrator, which corresponds to the pathway that describes a producer's operations. In determining the appropriate pathway, the contribution of fossil fuel feedstocks to the production of partially renewable fuel shall be ignored.

(5) *Renewable fuel produced from separated yard and food waste.*

(i) *Separated yard waste and food waste* means, for the purposes of this section, waste that is one of the following:

(A) Separated yard wastes, which are feedstock streams consisting of yard waste kept separate since generation from other waste materials. Separated yard wastes are deemed to be composed entirely of cellulosic materials.

(B) Separated food wastes, which are feedstock streams consisting of food wastes kept separate since generation from other waste materials, and which include food and beverage production wastes and post-consumer food and beverage wastes. Separated food wastes are deemed to be composed entirely of non-cellulosic materials, unless a party demonstrates that a portion of the feedstock is cellulosic through approval of their facility registration.

(C) Separated municipal solid waste (MSW), which is material remaining after separation actions have been taken to remove recyclable paper, cardboard, plastics, rubber, textiles, metals, and glass from municipal solid waste, and which is composed of both cellulosic and non-cellulosic materials.

(ii)(A) A feedstock qualifies under paragraph (f)(5)(i)(A) or (f)(5)(i)(B) of this section only if it is collected according to a plan submitted to and approved by U.S. EPA under the registration procedures specified in § 80.1450(b)(1)(vii).

(B) A feedstock qualifies under paragraph (f)(5)(i)(C) of this section only if it is collected according to a plan submitted to and approved by U.S. EPA under the registration procedures specified in § 80.1450(b)(1)(viii).

(iii) Separation and recycling actions specified in paragraph (f)(5)(i)(C) of this section are considered to occur if:

(A) Recyclable paper, cardboard, plastics, rubber, textiles, metals, and glass that can be recycled are separated and removed from the municipal solid waste stream to the extent reasonably practicable according to a plan submitted to and approved by U.S. EPA under the registration procedures specified in § 80.1450(b)(1)(viii); and

(B) The fuel producer has evidence of all contractual arrangements for paper, cardboard, plastics, rubber, textiles, metals, and glass that are recycled.

(iv)(A) The number of gallon-RINs that shall be generated for a batch of renewable fuel derived from separated yard waste as defined in paragraph (f)(5)(i)(A) of this section shall be equal to a volume V_{RIN} and is calculated according to the following formula:

$$V_{RIN} = EV * V_s$$

Where:

V_{RIN} = RIN volume, in gallons, for use in determining the number of cellulosic biofuel gallon-RINs that shall be generated for the batch.

EV = Equivalence value for the batch of renewable fuel per § 80.1415.

V_s = Standardized volume of the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

(B) The number of gallon-RINs that shall be generated for a batch of renewable fuel derived from separated food waste as defined in paragraph (f)(5)(i)(B) of this section shall be equal to a volume V_{RIN} and is calculated according to the following formula:

$$V_{RIN} = EV * V_s$$

Where:

V_{RIN} = RIN volume, in gallons, for use in determining the number of cellulosic or advanced biofuel gallon-RINs that shall be generated for the batch.

EV = Equivalence value for the batch of renewable fuel per § 80.1415.

V_s = Standardized volume of the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

(v) The number of cellulosic biofuel gallon-RINs that shall be generated for the cellulosic portion of a batch of renewable fuel derived from separated MSW as defined in paragraph (f)(5)(i)(C) of this section shall be determined according to the following formula:

$$V_{RIN} = EV * V_s * R$$

Where:

V_{RIN} = RIN volume, in gallons, for use in determining the number of cellulosic biofuel gallon-RINs that shall be generated for the batch.

EV = Equivalence value for the batch of renewable fuel per § 80.1415.

V_s = Standardized volume of the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

R = The calculated non-fossil fraction of the fuel as measured by a carbon-14 dating test method as provided in paragraph (f)(9) of this section.

(vi) The D code that shall be used in the RINs generated to represent separated yard waste, food waste, and MSW shall be the D code specified in Table 1 to this section, or a D code as approved by the Administrator, which corresponds to the pathway that describes the producer's operations and feedstocks.

(6) *Renewable fuel neither covered by the pathways in Table 1 to this section, nor given an approval by the Administrator for use of a specific D code.*

If none of the pathways described in Table 1 to this section apply to a producer's operations, and the producer has not received approval for the use of a specific D code by the Administrator, the party may generate RINs if the fuel from its facility is made from renewable biomass and qualifies for an exemption under § 80.1403 from the requirement that renewable fuel achieve at least a 20 percent reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions.

(i) The number of gallon-RINs that shall be generated for a batch of renewable fuel that qualifies for an exemption from the 20 percent GHG reduction requirements under § 80.1403 shall be equal to a volume calculated according to the following formula:

$$V_{RIN} = EV * V_s$$

Where:

V_{RIN} = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for the batch.

EV = Equivalence value for the batch of renewable fuel per § 80.1415.

V_s = Standardized volume of the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

(ii) A D code of 6 shall be used in the RINs generated under this paragraph (f)(6).

(7) *Determination of feedstock energy content factors.*

(i) For purposes of paragraphs (f)(3)(vi) and (f)(4)(i)(A)(*2*) of this section, producers must specify the value for E, the energy content of the components of the feedstock that are converted to renewable fuel, used in the calculation of the feedstock energy value FE.

(ii) The value for E shall represent the higher or gross calorific heating value for a feedstock on a zero moisture basis.

(iii) Producers must specify the value for E for each type of feedstock at least once per calendar year.

(iv) A producer must use default values for E as provided in paragraph (f)(7)(vi) of this section, or must determine alternative values for its own feedstocks according to paragraph (f)(7)(v) of this section.

(v) Producers that do not use a default value for E must use the following test methods, or alternative test methods as approved by EPA, to determine the value of E. The value of E shall be based upon the test results of a sample of feedstock that, based upon good engineering judgment, is representative of the feedstocks used to produce renewable fuel:

(A) ASTM E 870 or ASTM E 711 for gross calorific value (both incorporated by reference, see § 80.1468).

(B) ASTM D 4442 or ASTM D 4444 for moisture content (both incorporated by reference, see § 80.1468).

(vi) *Default values for E.*

(A) Starch: 7,600 Btu/lb.

(B) Sugar: 7,300 Btu/lb.

(C) Vegetable oil: 17,000 Btu/lb.

(D) Waste cooking oil or trap grease: 16,600 Btu/lb.

(E) Tallow or fat: 16,200 Btu/lb.

(F) Manure: 6,900 Btu/lb.

(G) Woody biomass: 8,400 Btu/lb.

(H) Herbaceous biomass: 7,300 Btu/lb.

(I) Yard wastes: 2,900 Btu/lb.

(J) Biogas: 11,000 Btu/lb.

(K) Food waste: 2,000 Btu/lb.

(L) Paper: 7,200 Btu/lb.

(M) Crude oil: 19,100 Btu/lb.

(N) Coal—bituminous: 12,200 Btu/lb.

(O) Coal—anthracite: 13,300 Btu/lb.

(P) Coal—lignite or sub-bituminous: 7,900 Btu/lb.

(Q) Natural gas: 19,700 Btu/lb.

(R) Tires or rubber: 16,000 Btu/lb.

(S) Plastic: 19,000 Btu/lb.

(8) *Standardization of volumes.* In determining the standardized volume of a batch of renewable fuel for purposes of generating RINs under this paragraph (f), the batch volumes shall be adjusted to a standard temperature of 60 °F.

(i) For ethanol, the following formula shall be used:

$$V_{s,e} = V_{a,e} * (-0.0006301 * T + 1.0378)$$

Where:

$V_{s,e}$ = Standardized volume of ethanol at 60 °F, in gallons.

$V_{a,e}$ = Actual volume of ethanol, in gallons.

T = Actual temperature of the batch, in °F.

(ii) For biodiesel (mono-alkyl esters), one of the following two methods for biodiesel temperature standardization to 60 °Fahrenheit (°F) shall be used:

(A) $V_{s,b} = V_{a,b} * (-0.00045767 * T + 1.02746025)$

Where:

$V_{s,b}$ = Standardized volume of biodiesel at 60 °F, in gallons.

$V_{a,b}$ = Actual volume of biodiesel, in gallons.

T = Actual temperature of the batch, in °F.

(B) The standardized volume of biodiesel at 60 °F, in gallons, as calculated from the use of the American Petroleum Institute Refined Products Table 6B, as referenced in ASTM D 1250 (incorporated by reference, see § 80.1468).

(iii) For other renewable fuels, an appropriate formula commonly

accepted by the industry shall be used to standardize the actual volume to 60 °F. Formulas used must be reported to EPA, and may be determined to be inappropriate.

(9) *Use of radiocarbon dating test methods.*

(i) Parties may use a radiocarbon dating test method for determination of the renewable fraction of a fuel R used to determine V_{RIN} as provided in paragraphs (f)(4) and (f)(5) of this section.

(ii) Parties must use Method B or Method C of ASTM D 6866 (incorporated by reference, *see* § 80.1468), or an alternative test method as approved by EPA.

(iii) For each batch of fuel, the value of R must be based on:

(A) A radiocarbon dating test of the batch of fuel produced; or

(B) A radiocarbon dating test of a composite sample of previously produced fuel, if all of the following conditions are met:

(*1*) Based upon good engineering judgment, the renewable fraction of the composite sample must be representative of the batch of fuel produced.

(*2*) The composite sample is comprised of a volume weighted combination of samples from every batch of partially renewable transportation fuel produced by the party over a period not to exceed one calendar month, or more frequently if necessary to ensure that the test results are representative of the renewable fraction of the partially renewable fuel.

(*3*) The composite sample must be well mixed prior to testing.

(*4*) A volume of each composite sample must be retained for a minimum of two years, and be of sufficient volume to permit two additional tests to be conducted.

(iv) If the party is using the composite sampling approach according to paragraph (f)(9)(iii)(B) of this section, the party may estimate the value of R for use in generating RINs in the first month if all of the following conditions are met:

(A) The estimate of R for the first month is based on information on the composition of the feedstock;

(B) The party calculates R in the second month based on the application of a radiocarbon dating test on a composite sample pursuant to (f)(9)(iii)(B) of this section; and

(C) The party adjusts the value of R used to generate RINs in the second month using the following formula:

$$R_{i+1,adj} = 2 \times R_{i+1,calc} - R_{i,est}$$

Where:

$R_{i+1,adj}$ = Adjusted value of R for use in generating RINs in month the second month i+1.

$R_{i+1,calc}$ = Calculated value of R in second month i+1 by applying a radiocarbon dating test method to a composite sample of fuel.

$R_{i,est}$ = Estimate of R for the first month i.

(10)(i) For purposes of this section, electricity and biogas used as transportation fuel is considered renewable fuel and the producer may generate RINs if all of the following apply:

(A) The fuel is produced from renewable biomass and qualifies for a D code in Table 1 to this section or has received approval for use of a D code by the Administrator;

(B) The renewable electricity, or biogas, is not placed in a commercial distribution system along with fuels derived from nonrenewable feedstocks; and

(C) The fuel producer has entered into a written contract for the sale and use as transportation fuel of a specific quantity of electricity or biogas.

(ii) Electricity that is generated by co-firing a combination of renewable biomass and fossil fuel may generate RINs only for the portion attributable to the renewable biomass portion, using the procedure described in paragraph (f)(4) of this section.

(11)(i) For purposes of this section, electricity and biogas that is introduced into a commercial distribution system may be considered renewable fuel and may qualify for RINs if:

(A) The fuel is produced from renewable biomass and qualifies for a D code in Table 1 of this section or has received approval for use of a D code by the Administrator;

(B) The fuel producer has entered into a written contract for the sale of a specific quantity of fuel derived from renewable biomass sources with a party that uses fuel taken from a commercial distribution system for transportation purposes, and such fuel has been introduced into that commercial distribution system (e.g., pipeline, transmission line); and

(C) The quantity of biogas or electricity for which RINs were generated was sold to the transportation fueling facility and to no other facility.

(ii) Biogas that is introduced into a commercial distribution system may qualify for RINs only for the volume of biogas that has been gathered, processed, and injected into a common carrier pipeline:

(A) The gas that is ultimately withdrawn from that pipeline for transportation purposes is withdrawn in a manner and at a time consistent with the transport of fuel between the injection and withdrawal points; and

(B) The volume and heat content of biogas injected into the pipeline and the volume of gas used as transportation fuel are measured by continuous metering.

(iii) The fuel used for transportation purposes is considered produced from renewable biomass only to the extent that:

(A) The amount of fuel used at the transportation fueling facility matches the amount of fuel derived from renewable biomass that the producer contracted to have placed into the commercial distribution system; and

(B) No other party relied upon the contracted volume of biogas for the creation of RINs.

(iv) Electricity that is generated by co-firing a combination of renewable biomass and fossil fuel may qualify for RINs only for the portion attributable to the renewable biomass, using the procedure described in paragraph (f)(4) of this section.

(12)(i) For purposes of Table 1 to this section, process heat produced from combustion of gas at a renewable fuel facility is considered derived from biomass if the gas used for process heat is biogas, and is generated at the facility or directly transported to the facility and meets all of the following conditions:

(A) The producer has entered into a written contract for the procurement of a specific volume of biogas with a specific heat content.

(B) The volume of biogas was sold to the renewable fuel production facility, and to no other facility.

(C) The volume of biogas has been gathered, processed and injected into a common carrier pipeline and the gas that is ultimately withdrawn from that pipeline is withdrawn in a manner and at a time consistent with the transport of fuel between the injection and withdrawal points.

(D) The volume and heat content of biogas injected into the pipeline and the volume of gas used as process heat are measured by continuous metering.

(E) The common carrier pipeline into which the biogas is placed ultimately serves the producer's renewable fuel facility.

(ii) The process heat produced from combustion of gas at a renewable fuel facility described in (f)(12)(i) of this section shall not be considered derived from biomass if any other party relied upon the contracted volume of biogas for the creation of RINs.

§ 80.1427 How are RINs used to demonstrate compliance?

(a) *Renewable Volume Obligations.*

(1) Except as specified in paragraph (b) of this section or § 80.1456, each party that is an obligated party under § 80.1406 and is obligated to meet the Renewable Volume Obligations under § 80.1407, or is an exporter of renewable fuels that is obligated to meet Renewable Volume Obligations under § 80.1430, must demonstrate pursuant to § 80.1451(a)(1) that it is retiring for compliance purposes a sufficient number of RINs to satisfy the following equations:

(i) *Cellulosic biofuel.*

$$(\Sigma RINNUM)_{CB,i} + (\Sigma RINNUM)_{CB,i-1} = RVO_{CB,i}$$

Where:

$(\Sigma RINNUM)_{CB,i}$ = Sum of all owned gallon-RINs that are valid for use in complying with the cellulosic biofuel RVO, were generated in year i, and are being applied towards the $RVO_{CB,i}$, in gallons.

$(\Sigma RINNUM)_{CB,i-1}$ = Sum of all owned gallon-RINs that are valid for use in complying with the cellulosic biofuel RVO, were generated in year i-1, and are being applied towards the $RVO_{CB,i}$, in gallons.

$RVO_{CB,i}$ = The Renewable Volume Obligation for cellulosic biofuel for the obligated party or renewable fuel exporter for calendar year i, in gallons, pursuant to § 80.1407 or § 80.1430.

(ii) *Biomass-based diesel.* Use the equation in this paragraph, except as provided in paragraph (a)(7) of this section.

$$(\Sigma RINNUM)_{BBD,i} + (\Sigma RINNUM)_{BBD,i-1} = RVO_{BBD,i}$$

Where:

$(\Sigma RINNUM)_{BBD,i}$ = Sum of all owned gallon-RINs that are valid for use in complying with the biomass-based diesel RVO, were generated in year i, and are being applied towards the $RVO_{BBD,i}$, in gallons.

$(\Sigma RINNUM)_{BBD,i-1}$ = Sum of all owned gallon-RINs that are valid for use in complying with the biomass-based diesel RVO, were generated in year i-1, and are being applied towards the $RVO_{BBD,i}$, in gallons.

$RVO_{BBD,i}$ = The Renewable Volume Obligation for biomass-based diesel for the obligated party or renewable fuel exporter for calendar year i after 2010, in gallons, pursuant to § 80.1407 or § 80.1430.

(iii) *Advanced biofuel.*

$$(\Sigma RINNUM)_{AB,i} + (\Sigma RINNUM)_{AB,i-1} = RVO_{AB,i}$$

Where:

$(\Sigma RINNUM)_{AB,i}$ = Sum of all owned gallon-RINs that are valid for use in complying with the advanced biofuel RVO, were generated in year i, and are being applied towards the $RVO_{AB,i}$, in gallons.

$(\Sigma RINNUM)_{AB,i-1}$ = Sum of all owned gallon-RINs that are valid for use in complying with the advanced biofuel RVO, were generated in year i-1, and are being applied towards the $RVO_{AB,i}$, in gallons.

$RVO_{AB,i}$ = The Renewable Volume Obligation for advanced biofuel for the obligated party or renewable fuel exporter for calendar year i, in gallons, pursuant to § 80.1407 or § 80.1430.

(iv) *Renewable fuel.*

$$(\Sigma RINNUM)_{RF,i} + (\Sigma RINNUM)_{RF,i-1} = RVO_{RF,i}$$

Where:

$(\Sigma RINNUM)_{RF,i}$ = Sum of all owned gallon-RINs that are valid for use in complying with the renewable fuel RVO, were generated in year i, and are being applied towards the $RVO_{RF,i}$, in gallons.

$(\Sigma RINNUM)_{RF,i-1}$ = Sum of all owned gallon-RINs that are valid for use in complying with the renewable fuel RVO, were generated in year i-1, and are being applied towards the $RVO_{RF,i}$, in gallons.

$RVO_{RF,i}$ = The Renewable Volume Obligation for renewable fuel for the obligated party or renewable fuel exporter for calendar year i, in gallons, pursuant to § 80.1407 or § 80.1430.

(2) Except as described in paragraph (a)(4) of this section, RINs that are valid for use in complying with each Renewable Volume Obligation are determined by their D codes.

(i) RINs with a D code of 3 or 7 are valid for compliance with the cellulosic biofuel RVO.

(ii) RINs with a D code of 4 or 7 are valid for compliance with the biomass-based diesel RVO.

(iii) RINs with a D code of 3, 4, 5, or 7 are valid for compliance with the advanced biofuel RVO.

(iv) RINs with a D code of 3, 4, 5, 6, or 7 are valid for compliance with the renewable fuel RVO.

(3)(i) Except as provided in paragraph (a)(3)(ii) of this section, a party may use the same RIN to demonstrate compliance with more than one RVO so long as it is valid for compliance with all RVOs to which it is applied.

(ii) A cellulosic diesel RIN with a D code of 7 cannot be used to demonstrate compliance with both a cellulosic biofuel RVO and a biomass-based diesel RVO.

(4) Notwithstanding the requirements of § 80.1428(c) or paragraph (a)(6)(i) of this section, for purposes of demonstrating compliance for calendar years 2010 or 2011, RINs generated pursuant to § 80.1126 that have not been used for compliance purposes may be used for compliance in 2010 or 2011, as follows, insofar as permissible pursuant to paragraphs (a)(5) and (a)(7)(iii) of this section:

(i) A RIN generated pursuant to § 80.1126 with a D code of 2 and an RR code of 15 or 17 is deemed equivalent to a RIN generated pursuant to § 80.1426 having a D code of 4.

(ii) A RIN generated pursuant to § 80.1126 with a D code of 1 is deemed equivalent to a RIN generated pursuant to § 80.1426 having a D code of 3.

(iii) All other RINs generated pursuant to § 80.1126 are deemed equivalent to RINs generated pursuant to § 80.1426 having D codes of 6.

(iv) A RIN generated pursuant to § 80.1126 that was retired pursuant to § 80.1129(e) because the associated volume of fuel was not used as motor vehicle fuel may be reinstated for use in complying with a 2010 RVO pursuant to § 80.1429(g).

(5) The value of $(\Sigma RINNUM)_{i-1}$ may not exceed values determined by the following inequalities except as provided in paragraph (a)(7)(iii) of this section and § 80.1442(d):

$$(\Sigma RINNUM)_{CB,i-1} \leq 0.20 * RVO_{CB,i}$$
$$(\Sigma RINNUM)_{BBD,i-1} \leq 0.20 * RVO_{BBD,i}$$
$$(\Sigma RINNUM)_{AB,i-1} \leq 0.20 * RVO_{AB,i}$$
$$(\Sigma RINNUM)_{RF,i-1} \leq 0.20 * RVO_{RF,i}$$

(6) Except as provided in paragraph (a)(7) of this section:

(i) RINs may only be used to demonstrate compliance with the RVOs for the calendar year in which they were generated or the following calendar year.

(ii) RINs used to demonstrate compliance in one year cannot be used to demonstrate compliance in any other year.

(7) *Biomass-based diesel in 2010.*

(i) Prior to determining compliance with the 2010 biomass-based diesel RVO, obligated parties may reduce the value of $RVO_{BBD,2010}$ by an amount equal to the sum of all 2008 and 2009 RINs that they used for compliance purposes for calendar year 2009 which have a D code of 2 and an RR code of 15 or 17.

(ii) For calendar year 2010 only, the following equation shall be used to determine compliance with the biomass-based diesel RVO instead of the equation in paragraph (a)(1)(ii) of this section:

$$(\Sigma RINNUM)_{BBD,2010} + (\Sigma RINNUM)_{BBD,2009} + (\Sigma RINNUM)_{BBD,2008} = RVO_{BBD,2010}$$

Where:

$(\Sigma RINNUM)_{BBD,2010}$ = Sum of all owned gallon-RINs that are valid for use in complying with the biomass-based diesel RVO, were generated in year 2010, and are being applied towards the $RVO_{BBD,2010}$, in gallons.

$(\Sigma RINNUM)_{BBD,2009}$ = Sum of all owned gallon-RINs that are valid for use in complying with the biomass-based diesel RVO, were generated in year 2009, have not previously been used for compliance purposes, and are being applied towards the $RVO_{BBD,2010}$, in gallons.

$(\Sigma RINNUM)_{BBD,2008}$ = Sum of all owned gallon-RINs that are valid for use in complying with the biomass-based diesel RVO, were generated in year 2008, have not previously been used for compliance

purposes, and are being applied towards the $RVO_{BBD,2010}$, in gallons.

$RVO_{BBD,2010}$ = The Renewable Volume Obligation for biomass-based diesel for the obligated party for calendar year 2010, in gallons, pursuant to § 80.1407 or § 80.1430, as adjusted by paragraph (a)(7)(i) of this section.

(iii) The values of $(\Sigma RINNUM)_{2008}$ and $(\Sigma RINNUM)_{2009}$ may not exceed values determined by both of the following inequalities:

$$(\Sigma RINNUM)_{BBD,2008} \leq 0.087 * RVO_{BBD,2010}$$

$$(\Sigma RINNUM)_{BBD,2008} + (\Sigma RINNUM)_{BBD,2009} \leq 0.20 * RVO_{BBD,2010}$$

(8) A party may only use a RIN for purposes of meeting the requirements of paragraph (a)(1) or (a)(7) of this section if that RIN is a separated RIN with a K code of 2 obtained in accordance with §§ 80.1428 and 80.1429.

(9) The number of gallon-RINs associated with a given batch-RIN that can be used for compliance with the RVOs shall be calculated from the following formula:

$$RINNUM = EEEEEEEE - SSSSSSSS + 1$$

Where:

RINNUM = Number of gallon-RINs associated with a batch-RIN, where each gallon-RIN represents one gallon of renewable fuel for compliance purposes.

EEEEEEEE = Batch-RIN component identifying the last gallon-RIN associated with the batch-RIN.

SSSSSSSS = Batch-RIN component identifying the first gallon-RIN associated with the batch-RIN.

(b) *Deficit carryovers.*

(1) An obligated party or an exporter of renewable fuel that fails to meet the requirements of paragraph (a)(1) or (a)(7) of this section for calendar year i is permitted to carry a deficit into year i+1 under the following conditions:

(i) The party did not carry a deficit into calendar year i from calendar year i-1 for the same RVO.

(ii) The party subsequently meets the requirements of paragraph (a)(1) of this section for calendar year i+1 and carries no deficit into year i+2 for the same RVO.

(iii) For compliance with the biomass-based diesel RVO in calendar year 2011, the deficit which is carried over from 2010 is no larger than 57% of the party's 2010 biomass-based diesel RVO as determined prior to any adjustment applied pursuant to paragraph (a)(7)(i) of this section.

(iv) The party uses the same compliance approach in year i+1 as it did in year i, as provided in § 80.1406(c)(2).

(2) A deficit is calculated according to the following formula:

$$D_i = RVO_i - [(\Sigma RINNUM)_i + (\Sigma RINNUM)_{i-1}]$$

Where:

D_i = The deficit, in gallons, generated in calendar year i that must be carried over to year i+1 if allowed pursuant to paragraph (b)(1) of this section.

RVO_i = The Renewable Volume Obligation for the obligated party or renewable fuel exporter for calendar year i, in gallons.

$(\Sigma RINNUM)_i$ = Sum of all acquired gallon-RINs that were generated in year i and are being applied towards the RVO_i, in gallons.

$(\Sigma RINNUM)_{i-1}$ = Sum of all acquired gallon-RINs that were generated in year i-1 and are being applied towards the RVO_i, in gallons.

§ 80.1428 General requirements for RIN distribution.

(a) *RINs assigned to volumes of renewable fuel.*

(1) *Assigned RIN,* for the purposes of this subpart, means a RIN assigned to a volume of renewable fuel pursuant to § 80.1426(e) with a K code of 1.

(2) Except as provided in § 80.1429, no person can separate a RIN that has been assigned to a batch pursuant to § 80.1426(e).

(3) An assigned RIN cannot be transferred to another person without simultaneously transferring a volume of renewable fuel to that same person.

(4) No more than 2.5 assigned gallon-RINs with a K code of 1 can be transferred to another person with every gallon of renewable fuel transferred to that same person.

(5)(i) On each of the dates listed in paragraph (a)(5)(ii) of this section in any calendar year, the following equation must be satisfied for assigned RINs and volumes of renewable fuel owned by a person:

$$\Sigma(RIN)_D \leq \Sigma(V_{si} * 2.5)_D$$

Where:

D = Applicable date.

$\Sigma(RIN)_D$ = Sum of all assigned gallon-RINs with a K code of 1 that are owned on date D.

$(V_{si})_D$ = Volume i of renewable fuel owned on date D, standardized to 60 °F, in gallons.

(ii) The applicable dates are March 31, June 30, September 30, and December 31.

(6) Any transfer of ownership of assigned RINs must be documented on product transfer documents generated pursuant to § 80.1453.

(i) The RIN must be recorded on the product transfer document used to transfer ownership of the volume of renewable fuel to another person; or

(ii) The RIN must be recorded on a separate product transfer document transferred to the same person on the same day as the product transfer document used to transfer ownership of the volume of renewable fuel.

(b) *RINs separated from volumes of renewable fuel.*

(1) *Separated RIN,* for the purposes of this subpart, means a RIN with a K code of 2 that has been separated from a volume of renewable fuel pursuant to § 80.1429.

(2) Any person that has registered pursuant to § 80.1450 can own a separated RIN.

(3) Separated RINs can be transferred any number of times.

(c) *RIN expiration.* Except as provided in § 80.1427(a)(7), a RIN is valid for compliance during the calendar year in which it was generated, or the following calendar year. Any RIN that is not used for compliance purposes for the calendar year in which it was generated, or for the following calendar year, will be considered an expired RIN. Pursuant to § 80.1431(a), an expired RIN that is used for compliance will be considered an invalid RIN.

(d) Any batch-RIN can be divided into multiple batch-RINs, each representing a smaller number of gallon-RINs, if all of the following conditions are met:

(1) All RIN components other than SSSSSSSS and EEEEEEEE are identical for the original parent and newly formed daughter RINs.

(2) The sum of the gallon-RINs associated with the multiple daughter batch-RINs is equal to the gallon-RINs associated with the parent batch-RIN.

§ 80.1429 Requirements for separating RINs from volumes of renewable fuel.

(a)(1) Separation of a RIN from a volume of renewable fuel means termination of the assignment of the RIN to a volume of renewable fuel.

(2) RINs that have been separated from volumes of renewable fuel become separated RINs subject to the provisions of § 80.1428(b).

(b) A RIN that is assigned to a volume of renewable fuel can be separated from that volume only under one of the following conditions:

(1) Except as provided in paragraphs (b)(7) and (b)(9) of this section, a party that is an obligated party according to § 80.1406 must separate any RINs that have been assigned to a volume of renewable fuel if that party owns that volume.

(2) Except as provided in paragraph (b)(6) of this section, any party that owns a volume of renewable fuel must separate any RINs that have been assigned to that volume once the volume is blended with gasoline or diesel to produce a transportation fuel, heating oil, or jet fuel. A party may separate up to 2.5 RINs per gallon of blended renewable fuel.

(3) Any party that exports a volume of renewable fuel must separate any RINs that have been assigned to the exported volume. A party may separate up to 2.5 RINs per gallon of exported renewable fuel.

(4) Any party that produces, imports, owns, sells, or uses a volume of neat renewable fuel, or a blend of renewable fuel and diesel fuel, must separate any RINs that have been assigned to that volume of neat renewable fuel or that blend if:

(i) The party designates the neat renewable fuel or blend as transportation fuel, heating oil, or jet fuel; and

(ii) The neat renewable fuel or blend is used without further blending, in the designated form, as transportation fuel, heating oil, or jet fuel.

(5) Any party that produces, imports, owns, sells, or uses a volume of electricity or biogas for which RINs have been generated in accordance with § 80.1426(f) must separate any RINs that have been assigned to that volume of renewable electricity or biogas if:

(i) The party designates the electricity or biogas as transportation fuel; and

(ii) The electricity or biogas is used as transportation fuel.

(6) RINs assigned to a volume of biodiesel (mono-alkyl ester) can only be separated from that volume pursuant to paragraph (b)(2) of this section if such biodiesel is blended into diesel fuel at a concentration of 80 volume percent biodiesel (mono-alkyl ester) or less.

(i) This paragraph (b)(6) shall not apply to biodiesel owned by obligated parties or to exported volumes of biodiesel.

(ii) This paragraph (b)(6) shall not apply to parties meeting the requirements of paragraph (b)(4) of this section.

(7) For RINs that an obligated party generates for renewable fuel that has not been blended into gasoline or diesel to produce a transportation fuel, heating oil, or jet fuel, the obligated party can only separate such RINs from volumes of renewable fuel if the number of gallon-RINs separated in a calendar year are less than or equal to a limit set as follows:

(i) For RINs with a D code of 3, the limit shall be equal to RVO_{CB}.

(ii) For RINs with a D code of 4, the limit shall be equal to RVO_{BBD}.

(iii) For RINs with a D code of 7, the limit shall be equal to the larger of RVO_{BBD} or RVO_{CB}.

(iv) For RINs with a D code of 5, the limit shall be equal to $RVO_{AB} - RVO_{CB} - RVO_{BBD}$.

(v) For RINs with a D code of 6, the limit shall be equal to $RVO_{RF} - RVO_{AB}$.

(8) Small refiners and small refineries may only separate RINs that have been assigned to volumes of renewable fuel that the party blends into gasoline or diesel to produce transportation fuel, heating oil, or jet fuel, or that the party used as transportation fuel, heating oil, or jet fuel. This paragraph (b)(8) shall apply only under the following conditions:

(i) During the calendar year in which the party has received a small refinery exemption under § 80.1441 or a small refiner exemption under § 80.1442; and

(ii) The party is not otherwise an obligated party during the period of time that the small refinery or small refiner exemption is in effect.

(9) Except as provided in paragraphs (b)(2) through (b)(5) and (b)(8) of this section, RINs owned by obligated parties whose non-export renewable volume obligations are solely related to the addition of blendstocks into a volume of finished gasoline, finished diesel fuel, RBOB, or CBOB, can only be separated from volumes of renewable fuel if the number of gallon-RINs separated in a calendar year are less than or equal to a limit set as follows:

(i) For RINs with a D code of 3, the limit shall be equal to RVO_{CB}.

(ii) For RINs with a D code of 4, the limit shall be equal to RVO_{BBD}.

(iii) For RINs with a D code of 7, the limit shall be equal to the larger of RVO_{BBD} or RVO_{CB}.

(iv) For RINs with a D code of 5, the limit shall be equal to $RVO_{AB} - RVO_{CB} - RVO_{BBD}$.

(v) For RINs with a D code of 6, the limit shall be equal to $RVO_{RF} - RVO_{AB}$.

(c) The party responsible for separating a RIN from a volume of renewable fuel shall change the K code in the RIN from a value of 1 to a value of 2 prior to transferring the RIN to any other party.

(d) Upon and after separation of a RIN from its associated volume of renewable fuel, the separated RIN must be accompanied by documentation when transferred to another party pursuant to § 80.1453.

(e) Upon and after separation of a RIN from its associated volume of renewable fuel, product transfer documents used to transfer ownership of the volume must meet the requirements of § 80.1453.

(f) Any party that uses a renewable fuel in any application that is not transportation fuel, heating oil, or jet fuel, or designates a renewable fuel for use as something other than transportation fuel, heating oil, or jet fuel, must retire any RINs received with that renewable fuel and report the retired RINs in the applicable reports under § 80.1451.

(g) Any 2009 RINs retired pursuant to § 80.1129 because renewable fuel was used in a non-motor vehicle application, heating oil, or jet fuel may be reinstated by the retiring party for sale or use to demonstrate compliance with a 2010 RVO.

§ 80.1430 Requirements for exporters of renewable fuels.

(a) Any party that owns any amount of renewable fuel, whether in its neat form or blended with gasoline or diesel, that is exported from any of the regions described in § 80.1426(b) shall acquire sufficient RINs to comply with all applicable Renewable Volume Obligations under paragraph (b) of this section representing the exported renewable fuel.

(b) *Renewable Volume Obligations.* An exporter of renewable fuel shall determine its Renewable Volume Obligations from the volumes of the renewable fuel exported.

(1) *Cellulosic biofuel.*

$$RVO_{CB,i} = \Sigma(VOL_k * EV_k)_i + D_{CB,i-1}$$

Where:

$RVO_{CB,i}$ = The Renewable Volume Obligation for cellulosic biofuel for the exporter for calendar year i, in gallons.

k = A discrete volume of exported renewable fuel.

VOL_k = The standardized volume of discrete volume k of exported renewable fuel that the exporter knows or has reason to know is cellulosic biofuel, in gallons, calculated in accordance with § 80.1426(f)(8).

EV_k = The equivalence value associated with discrete volume k.

Σ = Sum involving all volumes of cellulosic biofuel exported.

$D_{CB,i-1}$ = Deficit carryover from the previous year for cellulosic biofuel, in gallons.

(2) *Biomass-based diesel.*

$$RVO_{BBD,i} = \Sigma(VOL_k * EV_k)_i + D_{BBD,i-1}$$

Where:

$RVO_{BBD,i}$ = The Renewable Volume Obligation for biomass-based diesel for the exporter for calendar year i, in gallons.

k = A discrete volume of exported renewable fuel.

VOL_k = The standardized volume of discrete volume k of exported renewable fuel that is biodiesel or renewable diesel, or that the exporter knows or has reason to know is biomass-based diesel, in gallons, calculated in accordance with § 80.1426(f)(8).

EV_k = The equivalence value associated with discrete volume k.

Σ = Sum involving all volumes of biomass-based diesel exported.

$D_{BBD,i-1}$ = Deficit carryover from the previous year for biomass-based diesel, in gallons.

(3) *Advanced biofuel.*

$$RVO_{AB,i} = \Sigma(VOL_k * EV_k)_i + D_{AB,i-1}$$

Where:

$RVO_{AB,i}$ = The Renewable Volume Obligation for advanced biofuel for the exporter for calendar year i, in gallons.

k = A discrete volume of exported renewable fuel.

VOL_k = The standardized volume of discrete volume k of exported renewable fuel that is biodiesel or renewable diesel, or that the exporter knows or has reason to know is biomass-based diesel, cellulosic biofuel, or advanced biofuel, in gallons, calculated in accordance with § 80.1426(f)(8).

EV_k = The equivalence value associated with discrete volume k.

Σ = Sum involving all volumes of advanced biofuel exported.

$D_{AB,i-1}$ = Deficit carryover from the previous year for advanced biofuel, in gallons.

(4) *Renewable fuel.*

$$RVO_{RF,i} = \Sigma(VOL_k * EV_k)_i + D_{RF,i-1}$$

Where:

$RVO_{RF,i}$ = The Renewable Volume Obligation for renewable fuel for the exporter for calendar year i, in gallons.

k = A discrete volume of exported renewable fuel.

VOL_k = The standardized volume of discrete volume k of any exported renewable fuel, in gallons, calculated in accordance with § 80.1426(f)(8).

EV_k = The equivalence value associated with discrete volume k.

Σ = Sum involving all volumes of renewable fuel exported.

$D_{RF,i-1}$ = Deficit carryover from the previous year for renewable fuel, in gallons.

(c) If the exporter knows or has reason to know that a volume of exported renewable fuel is cellulosic diesel, he must treat the exported volume as either cellulosic biofuel or biomass-based diesel when determining his Renewable Volume Obligations pursuant to paragraph (b) of this section.

(d) For the purposes of calculating the Renewable Volume Obligations:

(1) If the equivalence value for a volume of exported renewable fuel can be determined pursuant to § 80.1415 based on its composition, then the appropriate equivalence value shall be used in the calculation of the exporter's Renewable Volume Obligations under paragraph (b) of this section.

(2) If the category of the exported renewable fuel is known to be biomass-based diesel but the composition is unknown, the value of EV_k shall be 1.5.

(3) If neither the category nor composition of a volume of exported renewable fuel can be determined, the value of EV_k shall be 1.0.

(e) For renewable fuels that are in the form of a blend with gasoline or diesel at the time of export, the exporter shall determine the volume of exported renewable fuel based on one of the following:

(1) Information from the supplier of the blend of the concentration of renewable fuel in the blend.

(2) Determination of the renewable portion of the blend using Method B or Method C of ASTM D 6866 (incorporated by reference, see § 80.1468), or an alternative test method as approved by the EPA.

(3) Assuming the maximum concentration of the renewable fuel in the blend as allowed by law and/or regulation.

(f) Each exporter of renewable fuel must demonstrate compliance with its RVOs pursuant to § 80.1427.

§ 80.1431 Treatment of invalid RINs.

(a) *Invalid RINs.*

(1) An invalid RIN is a RIN that is any of the following:

(i) A duplicate of a valid RIN.

(ii) Was based on incorrect volumes or volumes that have not been standardized to 60 °F.

(iii) Has expired, as provided in § 80.1428(c).

(iv) Was based on an incorrect equivalence value.

(v) Deemed invalid under § 80.1467(g).

(vi) Does not represent renewable fuel as defined in § 80.1401.

(vii) Was assigned an incorrect "D" code value under § 80.1426(f) for the associated volume of fuel.

(viii) Was improperly separated pursuant to § 80.1429.

(ix) Was otherwise improperly generated.

(2) In the event that the same RIN is transferred to two or more parties, all such RINs are deemed invalid, unless EPA in its sole discretion determines that some portion of these RINs is valid.

(b) In the case of RINs that are invalid, the following provisions apply:

(1) Upon determination by any party that RINs owned are invalid, the party must keep copies and adjust its records, reports, and compliance calculations in which the invalid RINs were used. The party must retire the invalid RINs in the applicable RIN transaction reports under § 80.1451(c)(2) for the quarter in which the RINs were determined to be invalid.

(2) Invalid RINs cannot be used to achieve compliance with the Renewable Volume Obligations of an obligated party or exporter, regardless of the party's good faith belief that the RINs were valid at the time they were acquired.

(3) Any valid RINs remaining after invalid RINs are retired must first be applied to correct the transfer of invalid RINs to another party before applying the valid RINs to meet the party's Renewable Volume Obligations at the end of the compliance year.

§ 80.1432 Reported spillage or disposal of renewable fuel.

(a) A reported spillage or disposal under this subpart means a spillage or disposal of renewable fuel associated with a requirement by a federal, state, or local authority to report the spillage or disposal.

(b) Except as provided in paragraph (c) of this section, in the event of a reported spillage or disposal of any volume of renewable fuel, the owner of the renewable fuel must retire a number of RINs corresponding to the volume of spilled or disposed of renewable fuel multiplied by its equivalence value.

(1) If the equivalence value for the spilled or disposed of volume may be determined pursuant to § 80.1415 based on its composition, then the appropriate equivalence value shall be used.

(2) If the equivalence value for a spilled or disposed of volume of renewable fuel cannot be determined, the equivalence value shall be 1.0.

(c) If the owner of a volume of renewable fuel that is spilled or disposed of and reported establishes that no RINs were generated to represent the volume, then no RINs shall be retired.

(d) A RIN that is retired under paragraph (b) of this section:

(1) Must be reported as a retired RIN in the applicable reports under § 80.1451.

(2) May not be transferred to another person or used by any obligated party to demonstrate compliance with the party's Renewable Volume Obligations.

§§ 80.1433–80.1439 [Reserved]

§ 80.1440 What are the provisions for blenders who handle and blend less than 125,000 gallons of renewable fuel per year?

(a) Renewable fuel blenders who handle and blend less than 125,000 gallons of renewable fuel per year, and who do not have Renewable Volume Obligations, are permitted to delegate their RIN-related responsibilities to the party directly upstream of them who supplied the renewable fuel for blending.

(b) The RIN-related responsibilities that may be delegated directly upstream include all of the following:

(1) The RIN separation requirements of § 80.1429.

(2) The reporting requirements of § 80.1451.

(3) The recordkeeping requirements of § 80.1454.

(4) The attest engagement requirements of § 80.1464.

(c) For upstream delegation of RIN-related responsibilities, both parties

must agree on the delegation, and a quarterly written statement signed by both parties must be included with the reporting party's reports under § 80.1451.

(1) Both parties must keep copies of the signed quarterly written statement agreeing to the upward delegation for 5 years.

(2) Parties delegating their RIN responsibilities upward shall keep copies of their registration forms as submitted to EPA.

(3) If EPA finds that a renewable fuel blender improperly delegated its RIN-related responsibilities under this subpart M, the blender will be held accountable for any RINs separated and will be subject to all RIN-related responsibilities under this subpart.

(d) Renewable fuel blenders who handle and blend less than 125,000 gallons of renewable fuel per year and delegate their RIN-related responsibilities under paragraph (b) of this section must register pursuant to § 80.1450(e).

(e) Renewable fuel blenders who handle and blend less than 125,000 gallons of renewable fuel per year and who do not opt to delegate their RIN-related responsibilities will be subject to all requirements stated in paragraph (b) of this section, and all other applicable requirements of this subpart M.

§ 80.1441 Small refinery exemption.

(a)(1) Transportation fuel produced at a refinery by a refiner, or foreign refiner (as defined at § 80.1465(a)), is exempt from January 1, 2010 through December 31, 2010 from the renewable fuel standards of § 80.1405, and the owner or operator of the refinery, or foreign refinery, is exempt from the requirements that apply to obligated parties under this subpart M for fuel produced at the refinery if the refinery meets the definition of a small refinery under § 80.1401 for calendar year 2006.

(2) The exemption of paragraph (a)(1) of this section shall apply unless a refiner chooses to waive this exemption (as described in paragraph (f) of this section), or the exemption is extended (as described in paragraph (e) of this section).

(3) For the purposes of this section, the term "refiner" shall include foreign refiners.

(4) This exemption shall only apply to refineries that process crude oil through refinery processing units.

(5) The small refinery exemption is effective immediately, except as specified in paragraph (b)(3) of this section.

(6) Refiners who own refineries that qualified as small under 40 CFR 80.1141 do not need to resubmit a small refinery verification letter under this subpart M. This paragraph (a) does not supersede § 80.1141.

(b)(1) A refiner owning a small refinery must submit a verification letter to EPA containing all of the following information:

(i) The annual average aggregate daily crude oil throughput for the period January 1, 2006 through December 31, 2006 (as determined by dividing the aggregate throughput for the calendar year by the number 365).

(ii) A letter signed by the president, chief operating or chief executive officer of the company, or his/her designee, stating that the information contained in the letter is true to the best of his/her knowledge, and that the refinery was small as of December 31, 2006.

(iii) Name, address, phone number, facsimile number, and e-mail address of a corporate contact person.

(2) Verification letters must be submitted by July 1, 2010 to one of the addresses listed in paragraph (h) of this section.

(3) For foreign refiners the small refinery exemption shall be effective upon approval, by EPA, of a small refinery application. The application must contain all of the elements required for small refinery verification letters (as specified in paragraph (b)(1) of this section), must satisfy the provisions of § 80.1465(f) through (i) and (o), and must be submitted by July 1, 2010 to one of the addresses listed in paragraph (h) of this section.

(4) Small refinery verification letters are not required for those refiners who have already submitted a complete verification letter under subpart K of this part 80. Verification letters submitted under subpart K prior to July 1, 2010 that satisfy the requirements of subpart K shall be deemed to satisfy the requirements for verification letters under this subpart M.

(c) If EPA finds that a refiner provided false or inaccurate information regarding a refinery's crude throughput (pursuant to paragraph (b)(1)(i) of this section) in its small refinery verification letter, the exemption will be void as of the effective date of these regulations.

(d) If a refiner is complying on an aggregate basis for multiple refineries, any such refiner may exclude from the calculation of its Renewable Volume Obligations (under § 80.1407) transportation fuel from any refinery receiving the small refinery exemption under paragraph (a) of this section.

(e)(1) The exemption period in paragraph (a) of this section shall be extended by the Administrator for a period of not less than two additional years if a study by the Secretary of Energy determines that compliance with the requirements of this subpart would impose a disproportionate economic hardship on a small refinery.

(2) A refiner may petition the Administrator for an extension of its small refinery exemption, based on disproportionate economic hardship, at any time.

(i) A petition for an extension of the small refinery exemption must specify the factors that demonstrate a disproportionate economic hardship and must provide a detailed discussion regarding the hardship the refinery would face in producing transportation fuel meeting the requirements of § 80.1405 and the date the refiner anticipates that compliance with the requirements can reasonably be achieved at the small refinery.

(ii) The Administrator shall act on such a petition not later than 90 days after the date of receipt of the petition.

(f) At any time, a refiner with a small refinery exemption under paragraph (a) of this section may waive that exemption upon notification to EPA.

(1) A refiner's notice to EPA that it intends to waive its small refinery exemption must be received by November 1 to be effective in the next compliance year.

(2) The waiver will be effective beginning on January 1 of the following calendar year, at which point the transportation fuel produced at that refinery will be subject to the renewable fuels standard of § 80.1405 and the owner or operator of the refinery shall be subject to all other requirements that apply to obligated parties under this Subpart M.

(3) The waiver notice must be sent to EPA at one of the addresses listed in paragraph (h) of this section.

(g) A refiner that acquires a refinery from either an approved small refiner (as defined under § 80.1442(a)) or another refiner with an approved small refinery exemption under paragraph (a) of this section shall notify EPA in writing no later than 20 days following the acquisition.

(h) Verification letters under paragraph (b) of this section, petitions for small refinery hardship extensions under paragraph (e) of this section, and small refinery exemption waiver notices under paragraph (f) of this section shall be sent to one of the following addresses:

(1) *For US mail:* U.S. EPA, *Attn:* RFS Program, 6406J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

(2) *For overnight or courier services:* U.S. EPA, *Attn:* RFS Program, 6406J,

1310 L Street, NW., 6th floor, Washington, DC 20005. (202) 343–9038.

§ 80.1442 What are the provisions for small refiners under the RFS program?

(a)(1) To qualify as a small refiner under this section, a refiner must meet all of the following criteria:

(i) The refiner produced transportation fuel at its refineries by processing crude oil through refinery processing units from January 1, 2006 through December 31, 2006.

(ii) The refiner employed an average of no more than 1,500 people, based on the average number of employees for all pay periods for calendar year 2006 for all subsidiary companies, all parent companies, all subsidiaries of the parent companies, and all joint venture partners.

(iii) The refiner had a corporate-average crude oil capacity less than or equal to 155,000 barrels per calendar day (bpcd) for 2006.

(2) For the purposes of this section, the term "refiner" shall include foreign refiners.

(3) Refiners who qualified as small under 40 CFR 80.1142 do not need to reapply for small refiner status under this subpart M. This paragraph (a) does not supersede § 80.1142.

(b)(1) The small refiner exemption is effective immediately, except as provided in paragraph (b)(5) of this section.

(2) Refiners who qualify for the small refiner exemption under paragraph (a) of this section must submit a verification letter (and any other relevant information) to EPA by July 1, 2010. The small refiner verification letter must include all of the following information for the refiner and for all subsidiary companies, all parent companies, all subsidiaries of the parent companies, and all joint venture partners:

(i) A listing of the name and address of each company location where any employee worked for the period January 1, 2006 through December 31, 2006.

(ii) The average number of employees at each location based on the number of employees for each pay period for the period January 1, 2006 through December 31, 2006.

(iii) The type of business activities carried out at each location.

(iv) For joint ventures, the total number of employees includes the combined employee count of all corporate entities in the venture.

(v) For government-owned refiners, the total employee count includes all government employees.

(vi) The total corporate crude oil capacity of each refinery as reported to the Energy Information Administration (EIA) of the U.S. Department of Energy (DOE), for the period January 1, 2006 through December 31, 2006. The information submitted to EIA is presumed to be correct. In cases where a company disagrees with this information, the company may petition EPA with appropriate data to correct the record when the company submits its application.

(vii) The verification letter must be signed by the president, chief operating or chief executive officer of the company, or his/her designee, stating that the information is true to the best of his/her knowledge, and that the company owned the refinery as of December 31, 2006.

(viii) Name, address, phone number, facsimile number, and e-mail address of a corporate contact person.

(3) In the case of a refiner who acquires or reactivates a refinery that was shutdown or non-operational between January 1, 2005 and January 1, 2006, the information required in paragraph (b)(2) of this section must be provided for the time period since the refiner acquired or reactivated the refinery.

(4) EPA will notify a refiner of its approval or disapproval of the application for small refiner status by letter.

(5) For foreign refiners the small refiner exemption shall be effective upon approval, by EPA, of a small refiner application. The application must contain all of the elements required for small refiner verification letters (as specified in paragraph (b)(2) of this section), must satisfy the provisions of § 80.1465(f) through (h) and (o), must demonstrate compliance with the crude oil capacity criterion of paragraph (a)(1)(iii) of this section, and must be submitted by July 1, 2010 to one of the addresses listed in paragraph (i) of this section.

(6) Small refiner verification letters submitted under subpart K (§ 80.1142) prior to July 1, 2010 that satisfy the requirements of subpart K shall be deemed to satisfy the requirements for small refiner verification letters under this subpart M.

(c) *Small refiner temporary exemption.*

(1) Transportation fuel produced by an approved small refiner, or foreign small refiner (as defined at § 80.1465(a)), is exempt from January 1, 2010 through December 31, 2010 from the renewable fuel standards of § 80.1405 and the requirements that apply to obligated parties under this subpart if the refiner or foreign refiner meets all the criteria of paragraph (a)(1) of this section.

(2) The small refiner exemption shall apply to an approved small refiner unless that refiner chooses to waive this exemption (as described in paragraph (d) of this section).

(d)(1) A refiner with approved small refiner status may, at any time, waive the small refiner exemption under paragraph (c) of this section upon notification to EPA.

(2) A refiner's notice to EPA that it intends to waive the small refiner exemption must be received by November 1 of a given year in order for the waiver to be effective for the following calendar year. The waiver will be effective beginning on January 1 of the following calendar year, at which point the refiner will be subject to the renewable fuel standards of § 80.1405 and the requirements that apply to obligated parties under this subpart.

(3) The waiver must be sent to EPA at one of the addresses listed in paragraph (i) of this section.

(e) Refiners who qualify as small refiners under this section and subsequently fail to meet all of the qualifying criteria as set out in paragraph (a) of this section are disqualified as small refiners of January 1 of the next calendar year, except as provided under paragraphs (d) and (e)(2) of this section.

(1) In the event such disqualification occurs, the refiner shall notify EPA in writing no later than 20 days following the disqualifying event.

(2) Disqualification under this paragraph (e) shall not apply in the case of a merger between two approved small refiners.

(f) If EPA finds that a refiner provided false or inaccurate information in its small refiner status verification letter under this subpart M, the refiner will be disqualified as a small refiner as of the effective date of this subpart.

(g) Any refiner that acquires a refinery from another refiner with approved small refiner status under paragraph (a) of this section shall notify EPA in writing no later than 20 days following the acquisition.

(h) *Extensions of the small refiner temporary exemption.*

(1) A small refiner may apply for an extension of the temporary exemption of paragraph (c)(1) of this section based on a showing of all the following:

(i) Circumstances exist that impose disproportionate economic hardship on the refiner and significantly affects the refiner's ability to comply with the RFS standards.

(ii) The refiner has made best efforts to comply with the requirements of this subpart.

(2) A refiner must apply, and be approved, for small refiner status under this section.

(3) A small refiner's hardship application must include all the following information:

(i) A plan demonstrating how the refiner will comply with the requirements of § 80.1405 (and all other requirements of this subpart applicable to obligated parties), as expeditiously as possible.

(ii) A detailed description of the refinery configuration and operations including, at a minimum, all the following information:

(A) The refinery's total crude capacity.

(B) Total crude capacity of any other refineries owned by the same entity.

(C) Total volume of gasoline and diesel produced at the refinery.

(D) Detailed descriptions of efforts to comply.

(E) Bond rating of the entity that owns the refinery.

(F) Estimated investment needed to comply with the requirements of this subpart M.

(4) A small refiner shall notify EPA in writing of any changes to its situation between approval of the extension application and the end of its approved extension period.

(5) EPA may impose reasonable conditions on extensions of the temporary exemption, including reducing the length of such an extension, if conditions or situations change between approval of the application and the end of the approved extension period.

(i) Small refiner status verification letters, small refiner exemption waivers, or applications for extensions of the small refiner temporary exemption under this section must be sent to one of the following addresses:

(1) *For US Mail:* U.S. EPA, *Attn:* RFS Program, 6406J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

(2) *For overnight or courier services:* U.S. EPA, *Attn:* RFS Program, 6406J, 1310 L Street, NW., 6th floor, Washington, DC 20005. (202) 343–9038.

§ 80.1443 What are the opt-in provisions for noncontiguous states and territories?

(a) Alaska or a United States territory may petition the Administrator to opt-in to the program requirements of this subpart.

(b) The Administrator will approve the petition if it meets the provisions of paragraphs (c) and (d) of this section.

(c) The petition must be signed by the Governor of the state or his authorized representative (or the equivalent official of the territory).

(d)(1) A petition submitted under this section must be received by EPA by November 1 for the state or territory to be included in the RFS program in the next calendar year.

(2) A petition submitted under this section should be sent to either of the following addresses:

(i) *For US Mail:* U.S. EPA, *Attn:* RFS Program, 6406J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

(ii) *For overnight or courier services:* U.S. EPA, *Attn:* RFS Program, 6406J, 1310 L Street, NW., 6th floor, Washington, DC 20005. (202) 343–9038.

(e) Upon approval of the petition by the Administrator:

(1) EPA shall calculate the standards for the following year, including the total gasoline and diesel fuel volume for the state or territory in question.

(2) Beginning on January 1 of the next calendar year, all gasoline and diesel fuel refiners and importers in the state or territory for which a petition has been approved shall be obligated parties as defined in § 80.1406.

(3) Beginning on January 1 of the next calendar year, all renewable fuel producers in the state or territory for which a petition has been approved shall, pursuant to § 80.1426(a)(2), be required to generate RINs and comply with other requirements of this subpart M that are applicable to producers of renewable fuel.

§§ 80.1444–80.1448 [Reserved]

§ 80.1449 What are the Production Outlook Report requirements?

(a) A registered renewable fuel producer or importer, for each of its facilities, must submit all of the following information, as applicable, to EPA by March 31 of each year (September 1 for the report due in 2010):

(1) The type, or types, of renewable fuel expected to be produced or imported at each facility owned by the renewable fuel producer or importer.

(2) The volume of each type of renewable fuel expected to be produced or imported at each facility.

(3) The number of RINs expected to be generated by the renewable fuel producer or importer for each type of renewable fuel.

(4) Information about all the following:

(i) Existing and planned production capacity.

(ii) Long-range plans for expansion of production capacity at existing facilities or construction of new facilities.

(iii) Feedstocks and production processes to be used at each production facility.

(iv) Changes to the facility that would raise or lower emissions of any greenhouse gases from the facility.

(5) For expanded production capacity that is planned or underway at each existing facility, or new production facilities that are planned or underway, information on all the following, as available:

(i) Strategic planning.

(ii) Planning and front-end engineering.

(iii) Detailed engineering and permitting.

(iv) Procurement and construction.

(v) Commissioning and startup.

(6) Whether capital commitments have been made or are projected to be made.

(b) The information listed in paragraph (a) of this section shall include the reporting party's best estimates for the five following calendar years.

(c) Production outlook reports must provide an update of the progress in each of the areas listed in paragraph (a) of this section in comparison to information provided in previous year production outlook reports.

(d) Production outlook reports shall be sent to one of the following addresses:

(1) *For U.S. Mail:* U.S. EPA, *Attn:* RFS Program—Production Outlook Reports, 6406J, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.

(2) *For overnight or courier services:* U.S. EPA, *Attn:* RFS Program—Production Outlook Reports, 6406J, 1310 L Street, NW., 6th floor, Washington, DC 20005; (202) 343–9038.

(e) All production outlook reports required under this section shall be submitted on forms and following procedures prescribed by the Administrator.

§ 80.1450 What are the registration requirements under the RFS program?

(a) *Obligated Parties and Exporters.* Any obligated party described in § 80.1406, and any exporter of renewable fuel described in § 80.1430, must provide EPA with the information specified for registration under § 80.76, if such information has not already been provided under the provisions of this part. An obligated party or an exporter of renewable fuel must receive EPA-issued identification numbers prior to engaging in any transaction involving RINs. Registration information may be submitted to EPA at any time after publication of this rule in the **Federal Register,** but must be submitted and accepted by EPA by July 1, 2010, or 60 days prior to RIN ownership, whichever date comes later.

(b) *Producers.* Any RIN-generating foreign or domestic producer of renewable fuel or any foreign producer that sells renewable fuel for RIN generation by a United States importer must provide EPA the information specified under § 80.76 if such information has not already been provided under the provisions of this part, and must receive EPA-issued company and facility identification numbers prior to the generation of any RINs for their fuel. All the following registration information may be submitted to EPA at any time after promulgation of this rule in the **Federal Register,** but must be submitted and accepted by EPA by July 1, 2010, or 60 days prior to the generation of RINs, whichever date comes later, subject to this subpart:

(1) A description of the types of renewable fuels that the producer intends to produce at the facility and that the facility is capable of producing without significant modifications to the existing facility. For each type of renewable fuel, the renewable fuel producer shall also provide all the following:

(i) A list of all the feedstocks the facility is capable of utilizing without significant modification to the existing facility.

(ii) A description of the facility's renewable fuel production processes.

(iii) The type of co-products produced with each type of renewable fuel.

(iv) A list of the facility's process energy fuel types and locations from which the fuel was produced or extracted.

(v) *For facilities described in § 80.1403(c) and (d):*

(A) The facility's baseline volume as defined in § 80.1403(a)(1).

(B) The facility's renewable fuel production capacity as specified in applicable air permits issued by the U.S. Environmental Protection Agency, state, local air pollution control agencies, or foreign governmental agencies and that govern the construction and/or operation of the renewable fuel facility:

(*1*) Issued or revised no later than December 19, 2007 for facilities described in § 80.1403(c).

(*2*) Issued or revised no later than December 31, 2009 for facilities described in § 80.1403(d).

(C) Copies of applicable air permits issued by the U.S. Environmental Protection Agency, state, local air pollution control agencies, or foreign governmental agencies, that provide evidence that such permits were issued prior to December 19, 2007 for facilities described in § 80.1403(c), and prior to December 31, 2009 for facilities described in § 80.1403(d).

(D) Copies of documents demonstrating the facility's actual peak capacity as defined in § 80.1401(a)(3) if the maximum rated annual volume output of renewable fuel is not specified in any applicable air permits issued by the U.S. Environmental Protection Agency, state, local air pollution control agencies, or foreign governmental agencies.

(E) The date that construction commences, along with evidence demonstrating that construction commenced as defined in § 80.1403(a)(4) including, but not limited to, contracts with construction and other companies.

(vi) Records relevant to generation of RINs from:

(A) Producers providing biogas, or renewable electricity to transportation fueling facilities as described in § 80.1426(f)(10);

(B) Producers providing biogas, or renewable electricity to transportation fueling facilities via commercial distribution systems as described in § 80.1426(f)(11); and

(C) Producers using biogas for process heat in the production of renewable fuel as described in § 80.1426(f)(12).

(vii)(A) For a producer of renewable fuel made from separated yard waste per § 80.1426(f)(5)(i)(A):

(*1*) The location of any municipal waste facility or other facility from which the waste stream consisting solely of separated yard waste is collected; and

(*2*) A plan documenting how the waste will be collected and for ongoing verification that such waste consists only of yard waste and kept separate since generation from other waste materials, and incidental other components (e.g., paper and plastics).

(B) For a producer of renewable fuel made from separated food waste per § 80.1426(f)(5)(i)(B):

(*1*) The location of any municipal waste facility or other facility from which the waste stream consisting solely of separated food waste is collected; and

(*2*) A plan documenting how the waste will be collected, how the cellulosic and non-cellulosic portions of the waste will be quantified, and for ongoing verification that such waste consists only of food waste kept separate since generation from other waste materials, containing only incidental other components (e.g., paper and plastics).

(viii) For a producer of renewable fuel made from separated municipal solid waste per § 80.1426(f)(5)(i)(C):

(A) The location of the municipal waste facility from which the separated food and yard waste is collected.

(B) A plan providing ongoing verification that there is separation of recyclable paper, cardboard, plastics, rubber, textiles, metals, and glass wastes to the extent reasonably practicable and which documents the following:

(*1*) Extent and nature of recycling that occurred prior to receipt of the waste material by the renewable fuel producer;

(*2*) Identification of available recycling technology and practices that are appropriate for removing recycling materials from the waste stream; and

(*3*) Identification of the technology or practices selected including an explanation for such selection, and reasons why other technologies or practices were not.

(C) Contracts relevant to materials recycled from municipal waste streams as described in § 80.1426(f)(5)(iii).

(D) Certification by the producer that recycling is conducted in a manner consistent with goals and requirements of applicable State and local laws relating to recycling and waste management.

(2) An independent third party engineering review and written report and verification of the information provided pursuant to paragraph (b)(1) of this section. The report and verification shall be based upon a site visit and review of relevant documents and shall separately identify each item required by paragraph (b)(1) of this section, describe how the independent third party evaluated the accuracy of the information provided, state whether the independent third party agrees with the information provided, and identify any exceptions between the independent third party's findings and the information provided.

(i) The verifications required under this section must be conducted by:

(A) A Professional Chemical Engineer who is based in the United States and is licensed by an appropriate state agency for a domestic production facility.

(B) An independent third party who is a licensed professional engineer or foreign equivalent who works in the chemical engineering field for a foreign production facility.

(ii) To be considered an independent third party under this paragraph (b)(2):

(A) The third party shall not be operated by the renewable fuel producer or any subsidiary or employee of the renewable fuel producer.

(B) The third party shall be free from any interest in the renewable fuel producer's business.

(C) The renewable fuel producer shall be free from any interest in the third party's business.

(D) Use of a third party that is debarred, suspended, or proposed for debarment pursuant to the Government-wide Debarment and Suspension regulations, 40 CFR part 32, or the Debarment, Suspension and Ineligibility provisions of the Federal Acquisition Regulations, 48 CFR, part 9, subpart 9.4, shall be deemed noncompliance with the requirements of this section.

(E) The third party must provide to EPA documentation of his or her qualifications as part of the engineering review, including proof of appropriate professional license or foreign equivalent.

(iii) The independent third party shall retain all records pertaining to the verification required under this section for a period of five years from the date of creation and shall deliver such records to the Administrator upon request.

(iv) The renewable fuel producer must retain records of the review and verification, as required in § 80.1454(b)(6).

(3) A Fuel Supply Plan that includes all the following information:

(i) Name of source of each and every fuel that the renewable fuel producer intends to be co-fired or used in a fuel blend.

(ii) Anticipated proportion of each fuel in the mix or in the fuel blend.

(iii) Anticipated net heat content of each, including any expected seasonal variations, such as those due to moisture content or wood species.

(iv) Seasonal variation, if any, of the fuel mix or blend.

(v) An affidavit from the biogas supplier stating its intent to supply biogas to the renewable fuel producer, the quantity and energy content of the biogas that it intends to provide to the renewable fuel producer, and a statement that this volume of biogas will not be used for the creation of a Renewable Energy Credit, or of any other type of environmental or energy attribute or credit.

(c) *Importers.* Importers of renewable fuel must provide EPA the information specified under § 80.76, if such information has not already been provided under the provisions of this part and must receive an EPA-issued company identification number prior to generating or owning RINs. Registration information may be submitted to EPA at any time after promulgation of this rule in the **Federal Register,** but must be submitted and accepted by EPA by July 1, 2010, or 60 days prior to an importer importing any renewable fuel with assigned RINs or generating any RINs for renewable fuel, whichever date comes later.

(d) *Registration updates.*

(1) Any producer of renewable fuel who makes changes to his facility that will qualify his renewable fuel for a renewable fuel category or D code as defined in § 80.1425(g) that is not reflected in the producer's registration information on file with EPA must update his registration information and submit a copy of an updated independent engineering review at least 60 days prior to producing the new type of renewable fuel.

(2) Any producer of renewable fuel who makes any other changes to a facility that do not affect the renewable fuel category for which the producer is registered per paragraph (b) of this section must update his registration information 7 days prior to the change.

(3) All producers of renewable fuel must update registration information and submit a copy of an updated independent engineering review every 3 years after initial registration. In addition to conducting the engineering review and written report and verification required by paragraph (b)(2) of this section, the updated independent engineering review shall include a detailed review of the renewable fuel producer's calculations used to determine V_{RIN} of a representative sample of batches of each type of renewable fuel produced since the last registration. The representative sample shall be selected in accordance with the sample size guidelines set forth at § 80.127.

(e) Any party who owns RINs, intends to own RINs, or intends to allow another party to separate RINs as per § 80.1440, but who is not covered by paragraphs (a), (b), or (c) of this section, must provide EPA the information specified under § 80.76, if such information has not already been provided under the provisions of this part and must receive an EPA-issued company identification number prior to owning any RINs. Registration information may be submitted to EPA at any time after promulgation of this rule in the **Federal Register**, but must be submitted at least 30 days prior to RIN ownership.

(f) To aid EPA in verifying claims that a facility qualifies for an exemption described in § 80.1403(c) or (d), registrations for such facilities must be submitted by July 1, 2013. EPA may in its sole discretion waive this requirement if it determines that the information submitted in any later registration can be verified by EPA in the same manner as would have been possible with a timely submission.

(g) Registration shall be on forms, and following policies, established by the Administrator.

§ 80.1451 What are the reporting requirements under the RFS program?

(a) *Obligated parties and exporters.* Any obligated party described in § 80.1406 or exporter of renewable fuel described in § 80.1430 must submit to EPA reports according to the schedule, and containing all the information, that is set forth in this paragraph (a).

(1) Annual compliance reports for the previous compliance period shall be submitted by February 28 of each year and shall include all of the following information:

(i) The obligated party's or exporter's name.

(ii) The EPA company registration number.

(iii) Whether the domestic refiner, as defined in § 80.1406, is complying on a corporate (aggregate) or facility-by-facility basis.

(iv) The EPA facility registration number, if complying on a facility-by-facility basis.

(v) The production volume and import volume of all of the products listed in § 80.1407(c) and (e) for the reporting year.

(vi) The RVOs, as defined in § 80.1427(a) for obligated parties and § 80.1430(b) for exporters of renewable fuel, for the reporting year.

(vii) Any deficit RVOs carried over from the previous year.

(viii) The total current-year RINs by category of renewable fuel, as those fuels are defined in § 80.1401 (i.e., cellulosic biofuel, biomass-based diesel, advanced biofuel, renewable fuel, and cellulosic diesel), retired for compliance.

(ix) The total prior-year RINs by renewable fuel category, as those fuels are defined in § 80.1401, retired for compliance.

(x) The total cellulosic biofuel waiver credits used to meet the party's cellulosic biofuel RVO.

(xi) A list of all RINs retired for compliance in the reporting year.

(A) RIN information provided by the EPA Moderated Transaction System (EMTS) that is retired to meet compliance conveyed via the EMTS as per § 80.1452.

(B) [Reserved]

(xii) Any deficit RVO(s) carried into the subsequent year.

(xiii) Any additional information that the Administrator may require.

(2) The RIN transaction reports required under paragraph (c)(1) of this section.

(3) The quarterly RIN activity reports required under paragraph (c)(2) of this section.

(4) Reports required under this paragraph (a) must be signed and certified as meeting all the applicable requirements of this subpart by the owner or a responsible corporate officer of the obligated party or exporter.

(b) *Renewable fuel producers (domestic and foreign) and importers.* Any domestic producer or importer of renewable fuel who generates RINs, or foreign renewable fuel producer who generates RINs, must submit to EPA reports according to the schedule, and containing all the information, that is set forth in this paragraph (b).

(1)(i) For RINs generated beginning on July 1, 2010, RIN generation reports for each facility owned by the renewable fuel producer or importer shall be submitted according to the schedule specified in paragraph (f)(2) of this section.

(ii) The RIN generation reports shall include all the following information for each batch of renewable fuel produced or imported, where "batch" means a discrete quantity of renewable fuel produced or imported and assigned a unique batch-RIN per § 80.1426(d):

(A) The RIN generator's name.

(B) The RIN generator's EPA company registration number.

(C) The renewable fuel producer EPA facility registration number.

(D) The importer EPA facility registration number and foreign renewable producer company registration number, if applicable.

(E) The applicable reporting period.

(F) The quantity of RINs generated for each batch according to § 80.1426.

(G) The production date of each batch.

(H) The category of renewable fuel of each batch, as defined in § 80.1401.

(I) The volume of denaturant and applicable equivalence value of each batch.

(J) The volume of each batch produced.

(K) The types and volumes of feedstocks used.

(L) The process(es) and feedstock(s) used and proportion of renewable volume attributable to each process and feedstock.

(M) The type of co-products produced with each batch of renewable fuel.

(N) The volume of co-products produced in each quarter.

(O) A list of the RINs generated and an affirmation that the feedstock(s) used for each batch meets the definition of renewable biomass as defined in § 80.1401.

(P) Producers of renewable electricity and biogas used for transportation as described in § 80.1426(f)(10) and (11), and producers of renewable fuel that use biogas for process heat as described in § 80.1426(f)(12), shall report the energy content produced and supplied to the transportation fueling facility, in units of energy (for example, MMBtu or MW) based on metering of gas volume or electricity. And the name and EPA company registration number of the transportation fueling facility.

(Q) Producers of renewable fuel that use biogas for process heat as described in § 80.1426(f)(12), shall identify the supplier of the biogas and report the energy content produced and supplied to the renewable fuel facility, in MMBtu based on metering of gas volume.

(R) Producers of renewable fuel made from municipal solid waste as described in § 80.1426(f)(5)(i)(C), shall report the amount of paper, cardboard, plastics, rubber, textiles, metals, and glass separated from municipal solid waste for recycling. Reporting shall be in units of weight.

(S) Any additional information the Administrator may require.

(2) The RIN transaction reports required under paragraph (c)(1) of this section.

(3) The RIN activity reports required under paragraph (c)(2) of this section.

(4) Reports required under this paragraph (b) must be signed and certified as meeting all the applicable requirements of this subpart by the owner or a responsible corporate officer of the renewable fuel producer or importer.

(c) *All RIN-owning parties.* Any party, including any party specified in paragraphs (a) and (b) of this section, that owns RINs during a reporting period, must submit reports to EPA according to the schedule, and containing all the information, that is set forth in this paragraph (c).

(1)(i) For RIN transactions beginning on July 1, 2010, RIN transaction reports listing each RIN transaction shall be submitted according to the schedule in paragraph (f)(2) of this section.

(ii) As per § 80.1452, RIN transaction information listing each RIN transaction shall be submitted to the EMTS.

(iii) Each report required by paragraph (c)(1)(i) of this section shall include all of the following information:

(A) The submitting party's name.

(B) The submitting party's EPA company registration number.

(C) The applicable reporting period.

(D) Transaction type (i.e., RIN buy, RIN sell, RIN separation, RIN retire, reinstated 2009 RIN).

(E) Transaction date.

(F) For a RIN purchase or sale, the trading partner's name.

(G) For a RIN purchase or sale, the trading partner's EPA company registration number. For all other transactions, the submitting party's EPA company registration number.

(H) RIN subject to the transaction.

(I) For a RIN purchase or sale, the per gallon RIN price and/or the per gallon price of renewable fuel price with RINs included.

(J) The reason code for retiring RINs, separating RINs, buying RINs, or selling RINs.

(K) Any additional information that the Administrator may require.

(2) RIN activity reports shall be submitted to EPA according to the schedule specified in paragraph (f)(2) of this section. Each report shall summarize RIN activities for the reporting period, separately for RINs separated from a renewable fuel volume and RINs assigned to a renewable fuel volume. The quarterly RIN activity reports shall include all of the following information:

(i) The submitting party's name.

(ii) The submitting party's EPA company registration number.

(iii) The number of current-year RINs owned at the start of the quarter.

(iv) The number of prior-year RINs owned at the start of the quarter.

(v) The total current-year RINs purchased.

(vi) The total prior-year RINs purchased.

(vii) The total current-year RINs sold.

(viii) The total prior-year RINs sold.

(ix) The total current-year RINs retired.

(x) The total prior-year RINs retired.

(xi) The number of current-year RINs owned at the end of the quarter.

(xii) The number of prior-year RINs owned at the end of the quarter.

(xiii) The number of RINs generated.

(xiv) The volume of renewable fuel (in gallons) owned at the end of the quarter.

(xv) The total 2009 retired RINs reinstated.

(xvi) Any additional information that the Administrator may require.

(3) All reports required under this paragraph (c) must be signed and certified as meeting all the applicable requirements of this subpart by the RIN owner or a responsible corporate officer of the RIN owner.

(d) Except for those producers subject to the aggregate compliance approach described in § 80.1454(g), producers and RIN-generating importers of renewable fuel made from feedstocks that are planted crops and crop residue from existing agricultural land, planted trees or tree residue from actively managed tree plantations, slash and pre-commercial thinnings from forestlands

or biomass obtained from areas at risk of wildfire must submit quarterly reports according to the schedule in paragraph (f)(2) of this section that include all of the following:

(1) A summary of the types and volumes of feedstocks used in that quarter.

(2) Electronic data identifying the land by coordinates of the points defining the boundaries from which each type of feedstock listed per paragraph (d)(1) of this section was harvested.

(3) If electronic data identifying a plot of land have been submitted previously, producers and RIN-generating importers may submit a cross-reference to that electronic data.

(e) If EPA finds that the 2007 baseline amount of agricultural land has been exceeded in any year beginning in 2010, beginning on the first day of July of the following calendar year any domestic producers of renewable fuel as defined in § 80.1401 who use planted crops and/or crop residue from existing agricultural lands as feedstock must submit quarterly reports according to the schedule in paragraph (f)(2) of this section that include all of the following:

(1) A summary of the types and volumes of feedstocks used in that quarter.

(2) Maps or electronic data identifying the land from which each type of feedstock listed per paragraph (d)(1) above was harvested.

(i) If maps or electronic data identifying a plot of land have been submitted previously, producers and RIN-generating importers may submit a cross-reference to that map or electronic data.

(ii) [Reserved.]

(f) *Quarterly report submission deadlines.* The submission deadlines for quarterly reports shall be as follows:

(1) [Reserved.]

(2) Quarterly reports shall be submitted to EPA by the last day of the second month following the reporting period (i.e., the report covering January–March would be due by May 31st, the report covering April–June would be due by August 31st, the report covering July–September would be due by November 30th and the report covering October–December would be due by February 28th). Any reports generated by EMTS must be reviewed, supplemented, and/or corrected if not complete and accurate, and verified by the owner or responsible corporate office prior to submittal.

(3) Reports required must be signed and certified as meeting all the applicable requirements of this subpart by the owner or a responsible corporate officer of the submitter.

(g) All reports required under this section shall be submitted on forms and following procedures prescribed by the Administrator.

§ 80.1452 What are the requirements related to the EPA Moderated Transaction System (EMTS)?

(a) Each party required to submit information under this section must establish an account with the EPA Moderated Transaction System (EMTS) at least 60 days prior to engaging in any RIN transactions, or July 1, 2010, whichever is later.

(b) Starting July 1, 2010, each time a domestic producer or importer of renewable fuel, or foreign renewable fuel producer who generates RINs, produces or imports a batch of renewable fuel, all the following information must be submitted to EPA via the submitting party's EMTS account within five (5) business days:

(1) The renewable fuel producer's, foreign renewable fuel producer's, or importer's name.

(2) The renewable fuel producer's or foreign renewable fuel producer's EPA company registration number.

(3) The importer's EPA company registration number if applicable.

(4) The renewable fuel producer's or foreign renewable fuel producer's EPA facility registration number.

(5) The importer's EPA facility registration number.

(6) The RIN type (i.e., D code) of the batch.

(7) The production process(es) used for the batch.

(8) The production date of the batch.

(9) The category of renewable fuel of the batch, as defined in § 80.1401.

(10) The volume of the batch.

(11) The volume of denaturant and applicable equivalence value of each batch.

(12) Quantity of RINs generated for the batch.

(13) The type and volume of feedstock(s) used for the batch.

(14) An affirmation that the feedstock(s) used for each batch meets the definition of renewable biomass as defined in § 80.1401.

(15) The type of co-products produced with the batch of renewable fuel.

(16) Any additional information the Administrator may require.

(c) Starting July 1, 2010, each time any party engages in a transaction involving RINs, all the following information must be submitted to EPA via the submitting party's EMTS account within five (5) business days:

(1) The submitting party's name.

(2) The submitting party's EPA company registration number.

(3) The generation year of the RINs.

(4) The RIN assignment information (Assigned or Separated).

(5) The RIN type, or D code.

(6) Transaction type (i.e., RIN buy, RIN sell, RIN separation, RIN retire).

(7) Transaction date as per § 80.1453(a)(4).

(8) For a RIN purchase or sale, the trading partner's name.

(9) For a RIN purchase or sale, the trading partner's EPA company registration number.

(10) For an assigned RIN purchase or sale, the renewable fuel volume associated with the sale.

(11) Quantity of RINs involved in a transaction.

(12) The per gallon RIN price or the per-gallon price of renewable fuel with RINs included.

(13) The reason for retiring RINs, separating RINs, buying RINs, or selling RINs.

(14) Any additional information that the Administrator may require.

(d) All information required under this section shall be submitted on forms and following procedures prescribed by the Administrator.

§ 80.1453 What are the product transfer document (PTD) requirements for the RFS program?

(a) On each occasion when any party transfers ownership of renewable fuels or separated RINs subject to this subpart, the transferor must provide to the transferee documents identifying the renewable fuel and any RINs (whether assigned or separated) which include all of the following information, as applicable:

(1) The name and address of the transferor and transferee.

(2) The transferor's and transferee's EPA company registration numbers.

(3) The volume of renewable fuel that is being transferred, if any.

(4) The date of the transfer.

(5) For assigned or separated RINs, the per gallon RIN price or the per gallon renewable fuel price if the RIN price is included.

(6) The quantity of RINs being traded.

(7) The RIN type (i.e., D code).

(8) The Assignment Code (Assigned or Separated, or K code = 1 or 2).

(9) The RIN generation year.

(10) The associated reason for the sell or buy transaction.

(11) Whether any RINs are assigned to the volume, as follows:

(i) If the assigned RINs are being transferred on the same PTD used to transfer ownership of the renewable fuel, then the assigned RINs shall be listed on the PTD.

(ii) If the assigned RINs are being transferred on a separate PTD from that which is used to transfer ownership of the renewable fuel, then the PTD which is used to transfer ownership of the renewable fuel shall state the number of gallon-RINs being transferred as well as a unique reference to the PTD which is transferring the assigned RINs.

(iii) If no assigned RINs are being transferred with the renewable fuel, the PTD which is used to transfer ownership of the renewable fuel shall state "No assigned RINs transferred."

(iv) If RINs have been separated from the renewable fuel or blend pursuant to § 80.1429(b)(4), then all PTDs which are at any time used to transfer ownership of the renewable fuel or blend shall state "This volume of fuel must be used in the designated form, without further blending."

(b) Except for transfers to truck carriers, retailers, or wholesale purchaser-consumers, product codes may be used to convey the information required under paragraphs (a)(1) through (a)(11) of this section if such codes are clearly understood by each transferee.

(c) For renewable fuel, other than ethanol, that is not registered as motor vehicle fuel under 40 CFR Part 79, the PTD which is used to transfer ownership of the renewable fuel shall state "This volume of renewable fuel may not be used as a motor vehicle fuel."

§ 80.1454 What are the recordkeeping requirements under the RFS program?

(a) *Requirements for obligated parties and exporters.* Beginning July 1, 2010, any obligated party (as described at § 80.1406) or exporter of renewable fuel (as described at § 80.1401) must keep all of the following records:

(1) Product transfer documents consistent with § 80.1453 and associated with the obligated party's or exporter's activity, if any, as transferor or transferee of renewable fuel or separated RINs.

(2) Copies of all reports submitted to EPA under §§ 80.1449 and 80.1451(a), as applicable.

(3) Records related to each RIN transaction, including all of the following:

(i) A list of the RINs owned, purchased, sold, separated, retired, or reinstated.

(ii) The parties involved in each RIN transaction including the transferor, transferee, and any broker or agent.

(iii) The date of the transfer of the RIN(s).

(iv) Additional information related to details of the RIN transaction and its terms.

(4) Records related to the use of RINs (by facility, if applicable) for compliance, including all of the following:

(i) Methods and variables used to calculate the Renewable Volume Obligations pursuant to § 80.1407 or § 80.1430.

(ii) List of RINs used to demonstrate compliance.

(iii) Additional information related to details of RIN use for compliance.

(5) Records related to the separation of assigned RINs from renewable fuel volume.

(b) *Requirements for all producers of renewable fuel.* Beginning July 1, 2010, any domestic or RIN-generating foreign producer of a renewable fuel as defined in § 80.1401 must keep all of the following records in addition to those required under paragraphs (c) or (d) of this section:

(1) Product transfer documents consistent with § 80.1453 and associated with the renewable fuel producer's activity, if any, as transferor or transferee of renewable fuel or separated RINs.

(2) Copies of all reports submitted to EPA under §§ 80.1449 and 80.1451(b).

(3) Records related to the generation and assignment of RINs for each facility, including all of the following:

(i) Batch volume in gallons.

(ii) Batch number.

(iii) RIN as assigned under § 80.1426, if applicable.

(iv) Identification of batches by renewable category.

(v) Type and quantity of co-products produced.

(vi) Type and quantity of feedstocks used.

(vii) Type and quantity of fuel used for process heat.

(viii) Feedstock energy calculations per § 80.1426(f)(4).

(ix) Date of production.

(x) Results of any laboratory analysis of batch chemical composition or physical properties.

(xi) All commercial documents and additional information related to details of RIN generation.

(4) Records related to each RIN transaction, separately for each transaction, including all of the following:

(i) A list of the RINs owned, purchased, sold, retired, or reinstated.

(ii) The parties involved in each transaction including the transferor, transferee, and any broker or agent.

(iii) The date of the transfer of the RIN(s).

(iv) Additional information related to details of the transaction and its terms.

(5) Records related to the production, importation, ownership, sale or use of any volume of renewable fuel for which RINs were generated or blend of renewable fuel for which RINs were generated and gasoline or diesel fuel that any party designates for use as transportation fuel, jet fuel, or heating oil and the use of the fuel or blend as transportation fuel, jet fuel, or heating oil without further blending, in the designated form.

(6) Copies of registration documents required under § 80.1450, including information on fuels and products, feedstocks, facility production processes, process changes, and capacity, energy sources, and a copy of the independent third party engineering review submitted to EPA per § 80.1450(b)(2).

(c) *Additional requirements for imports of renewable fuel.*

(1) Beginning July 1, 2010, any RIN-generating foreign producer of a renewable fuel or RIN-generating importer must keep records of feedstock purchases and transfers associated with renewable fuel for which RINs are generated, sufficient to verify that feedstocks used are renewable biomass (as defined in § 80.1401).

(i) RIN-generating foreign producers and importers of renewable fuel made from feedstocks that are planted crops or crop residue from existing agricultural land, planted trees or tree residue from actively managed tree plantations, slash and pre-commercial thinnings from forestlands or biomass obtained from wildland-urban interface must maintain all of the following records to verify the location where these feedstocks were produced:

(A) Maps or electronic data indentifying the boundaries of the land where each type of feedstock was produced.

(B) Bills of lading, product transfer documents, or other commercial documents showing the quantity of feedstock purchased from each area identified in paragraph (c)(1)(i)(A) of this section, and showing each transfer of custody of the feedstock from the location where it was produced to the renewable fuel production facility.

(ii)(A) RIN-generating foreign producers and importers of renewable fuel made from planted crops or crop residue from existing agricultural land must keep records that serve as evidence that the land from which the feedstock was obtained was cleared or cultivated prior to December 19, 2007 and actively managed or fallow, and nonforested on December 19, 2007. RIN-generating foreign producers or importers of renewable fuel made from planted trees or tree residue from actively managed tree plantations must

keep records that serve as evidence that the land from which the feedstock was obtained was cleared prior to December 19, 2007 and actively managed on December 19, 2007.

(B) The records must be provided by the feedstock producer, traceable to the land in question, and consist of at least one of the following documents:

(*1*) Sales records for planted crops or trees, crop or tree residue, or livestock; purchasing records for fertilizer, weed control, or reseeding, including seeds, seedlings, or other nursery stock.

(*2*) A written management plan for agricultural or silvicultural purposes; documentation of participation in an agricultural or silvicultural program sponsored by a Federal, state, or local government agency.

(*3*) Documentation of land management in accordance with an agricultural or silvicultural product certification program, an agreement for land management consultation with a professional forester that identifies the land in question.

(*4*) Evidence of the existence and ongoing maintenance of a road system or other physical infrastructure designed and maintained for logging use, together with one of the aforementioned documents in this paragraph (c)(1)(ii)(B).

(iii) RIN-generating foreign producers and importers of renewable fuel made from any other type of renewable biomass must have documents from their feedstock supplier certifying that the feedstock qualifies as renewable biomass as defined in § 80.1401, describing the feedstock and identifying the process that was used to generate the feedstock.

(2) Beginning July 1, 2010, any RIN-generating importer of renewable fuel (as defined in § 80.1401) must keep all of the following records:

(i) Product transfer documents consistent with § 80.1453 and associated with the renewable fuel importer's activity, if any, as transferor or transferee of renewable fuel.

(ii) Copies of all reports submitted to EPA under §§ 80.1449 and 80.1451(b); however, duplicate records are not required.

(iii) Records related to the generation and assignment of RINs for each facility, including all of the following:

(A) Batch volume in gallons.

(B) Batch number.

(C) RIN as assigned under § 80.1426.

(D) Identification of batches by renewable category.

(E) Type and quantity of feedstocks used.

(F) Type and quantity of fuel used for process heat.

(G) Date of import.

(H) Results of any laboratory analysis of batch chemical composition or physical properties.

(I) The EPA registration number of the foreign renewable fuel producers producing the fuel.

(J) Additional information related to details of RIN generation.

(iv) Records related to each RIN transaction, including all of the following:

(A) A list of the RINs owned, purchased, sold, separated, retired, or reinstated.

(B) The parties involved in each transaction including the transferor, transferee, and any broker or agent.

(C) The date of the transfer of the RIN(s).

(D) Additional information related to details of the transaction and its terms.

(v) Copies of registration documents required under § 80.1450.

(vi) Records related to the import of any volume of renewable fuel that the importer designates for use as transportation fuel, jet fuel, or heating oil.

(d) *Additional requirements for domestic producers of renewable fuel.* Except as provided in paragraphs (g) and (h) of this section, beginning July 1, 2010, any domestic producer of renewable fuel as defined in § 80.1401 that generates RINs for such fuel must keep documents associated with feedstock purchases and transfers that identify where the feedstocks were produced and are sufficient to verify that feedstocks used are renewable biomass (as defined in § 80.1401) if RINs are generated.

(1) Domestic producers of renewable fuel made from feedstocks that are planted trees or tree residue from actively managed tree plantations, slash and pre-commercial thinnings from forestlands or biomass obtained from areas at risk of wildfire must maintain all the following records to verify the location where these feedstocks were produced:

(i) Maps or electronic data identifying the boundaries of the land where each type of feedstock was produced.

(ii) Bills of lading, product transfer documents or other commercial documents showing the quantity of feedstock purchased from each area identified in paragraph (d)(1)(i) of this section, and showing each transfer of custody of the feedstock from the location where it was produced to the renewable fuel production facility.

(2) Domestic producers of renewable fuel made from planted trees or tree residue from actively managed tree plantations must keep records that serve as evidence that the land from which the feedstock was obtained was cleared prior to December 19, 2007 and actively managed on December 19, 2007. The records must be provided by the feedstock producer and must include at least one of the following documents, which must be traceable to the land in question:

(i) Sales records for planted trees or tree residue.

(ii) Purchasing records for fertilizer, weed control, or reseeding, including seeds, seedlings, or other nursery stock.

(iii) A written management plan for silvicultural purposes.

(iv) Documentation of participation in a silvicultural program sponsored by a Federal, state, or local government agency.

(v) Documentation of land management in accordance with a silvicultural product certification program, an agreement for land management consultation with a professional forester.

(vi) Evidence of the existence and ongoing maintenance of a road system or other physical infrastructure designed and maintained for logging use, together with one of the aforementioned documents.

(3) Domestic producers of renewable fuel made from any other type of renewable biomass must have documents from their feedstock supplier certifying that the feedstock qualifies as renewable biomass as defined in § 80.1401, describing the feedstock and identifying the process that was used to generate the feedstock.

(e) *Additional requirements for producers of fuel exempt from the 20% GHG reduction requirement.* Beginning July 1, 2010, any production facility with a baseline volume of fuel that is not subject to the 20% GHG threshold, pursuant to § 80.1403(c) and (d), must keep all of the following:

(1) Detailed engineering plans for the facility.

(2) Federal, State, and local (or foreign governmental) preconstruction approvals and permitting.

(3) Procurement and construction contracts and agreements.

(f) *Requirements for other parties that own RINs.* Beginning July 1, 2010, any party, other than those parties covered in paragraphs (a) and (b) of this section, that owns RINs must keep all of the following records:

(1) Product transfer documents consistent with § 80.1453 and associated with the party's activity, if any, as transferor or transferee of renewable fuel or separated RINs.

(2) Copies of all reports submitted to EPA under § 80.1451(c).

(3) Records related to each RIN transaction by renewable fuel category, including all of the following:

(i) A list of the RINs owned, purchased, sold, retired, or reinstated.

(ii) The parties involved in each RIN transaction including the transferor, transferee, and any broker or agent.

(iii) The date of the transfer of the RIN(s).

(iv) Additional information related to details of the transaction and its terms.

(4) Records related to any volume of renewable fuel that the party designated for use as transportation fuel, jet fuel, or heating oil and from which RINs were separated pursuant to § 80.1429(b)(4).

(g) *Aggregate compliance with renewable biomass requirement.* Any domestic producer of renewable fuel made from planted crops or crop residue from existing agricultural land as defined in § 80.1401 is subject to the aggregate compliance approach and is not required to maintain feedstock records unless EPA publishes a finding that the 2007 baseline amount of agricultural land has been exceeded.

(1) EPA will make a finding concerning whether the 2007 baseline amount of agricultural land has been exceeded and will publish this finding in the **Federal Register** by November 30 of the year preceding the compliance period.

(2) If EPA finds that the 2007 baseline amount of agricultural land has been exceeded, beginning on the first day of July of the compliance period in question any domestic producer of renewable fuel made from planted crops and/or crop residue from agricultural lands as feedstock for renewable fuel for which RINs are generated must keep all the following records:

(i) Records that serve as evidence that the land from which the feedstock was obtained was cleared or cultivated prior to December 19, 2007 and actively managed or fallow, and nonforested on December 19, 2007. The records must be provided by the feedstock producer and must include at least one of the following documents, which must be traceable to the land in question:

(A) Sales records for planted crops, crop residue or livestock.

(B) Purchasing records for fertilizer, weed control, seeds, seedlings, or other nursery stock.

(C) A written management plan for agricultural purposes.

(D) Documentation of participation in an agricultural program sponsored by a Federal, state, or local government agency.

(E) Documentation of land management in accordance with an agricultural product certification program.

(ii) Records to verify the location where the feedstocks were produced:

(A) Maps or electronic data indentifying the boundaries of the land where each type of feedstock was produced; and

(B) Bills of lading, product transfer documents or other commercial documents showing the quantity of feedstock purchased from each area identified in paragraph (c)(1)(i)(A) of this section, and showing each transfer of custody of the feedstock from the location where it was produced to the renewable fuel facility.

(h) *Alternative renewable biomass tracking requirement.* Any foreign or domestic renewable fuel producer or importer as defined in § 80.1401 may comply with the following alternative renewable biomass tracking requirement instead of the recordkeeping requirements in paragraphs (c)(1), (d), and (g) of this section:

(1) To comply with the alternative renewable biomass tracking requirement under this paragraph (h), a renewable fuel producer or importer must either arrange to have an independent third party conduct a comprehensive program of annual compliance surveys, or participate in the funding of an organization which arranged to have an independent third party conduct a comprehensive program of annual compliance surveys, to be carried out in accordance with a survey plan which has been approved by EPA.

(2) The annual compliance surveys under this paragraph (h) must be all the following:

(i) Planned and conducted by an independent surveyor that meets the requirements in § 80.68(c)(13)(i).

(ii) Conducted at renewable fuel production and import facilities and their feedstock suppliers.

(iii) Representative of all renewable fuel producers and importers in the survey area and representative of their feedstock suppliers.

(iv) Designed to achieve at least the same level of quality assurance required in paragraphs (c)(1), (d) and (g) of this section.

(3) The compliance survey program shall require the independent surveyor conducting the surveys to do all the following:

(i) Conduct feedstock audits of renewable fuel production and import facilities in accordance with the survey plan approved under this paragraph (h), or immediately notify EPA of any refusal of these facilities to allow an audit to be conducted.

(ii) Obtain the records and product transfer documents associated with the feedstocks being audited.

(iii) Determine the feedstock supplier(s) that supplied the feedstocks to the renewable fuel producer.

(iv) Confirm that feedstocks used to produce RIN-generating renewable fuels meet the definition of renewable biomass as defined in § 80.1401.

(v) Immediately notify EPA of any case where the feedstocks do not meet the definition of renewable biomass as defined in § 80.1401.

(vi) Immediately notify EPA of any instances where a renewable fuel producer, importer or feedstock supplier subject to review under the approved plan fails to cooperate in the manner described in this section.

(vii) Submit to EPA a report of each survey, within thirty days following the completion of each survey, such report to include all the following information:

(A) The identification of the person who conducted the survey.

(B) An attestation by the officer of the surveyor company that the survey was conducted in accordance with the survey plan and the survey results are accurate.

(C) Identification of the parties for whom the survey was conducted.

(D) Identification of the covered area surveyed.

(E) The dates on which the survey was conducted.

(F) The address of each facility at which the survey audit was conducted and the date of the audit.

(G) A description of the methodology used to select the locations for survey audits and the number of audits conducted.

(viii) Maintain all records relating to the survey audits conducted under this section (h) for a period of at least 5 years.

(ix) At any time permit any representative of EPA to monitor the conduct of the surveys, including observing audits, reviewing records, and analysis of the audit results.

(4) A survey plan under this paragraph (h) must include all the following:

(i) Identification of the parties for whom the survey is to be conducted.

(ii) Identification of the independent surveyor.

(iii) A methodology for determining all the following:

(A) When the audits will be conducted.

(B) The audit locations.

(C) The number of audits to be conducted during the annual compliance period.

(iv) Any other elements determined by EPA to be necessary to achieve the

level of quality assurance required under paragraphs (c)(1), (d), and (g) of this section.

(5)(i) Each renewable fuel producer and importer who participates in the alternative renewable biomass tracking under this paragraph (h) must take all reasonable steps to ensure that each feedstock producer, aggregator, distributor, or supplier cooperates with this program by allowing the independent surveyor to audit their facility and by providing to the independent surveyor and/or EPA, upon request, copies of management plans, product transfer documents, and other records or information regarding the source of any feedstocks received.

(ii) Reasonable steps under paragraph (h)(5)(i) of this section must include, but typically should not be limited to: Contractual agreements with feedstock producers, aggregators, distributors, and suppliers, which require them to cooperate with the independent surveyor and/or EPA in the manner described in paragraph (h)(5)(i) of this section.

(6) The procedure for obtaining EPA approval of a survey plan under this paragraph (h), and for revocation of any such approval, are as follows:

(i) A detailed survey plan which complies with the requirements of this paragraph (h) must be submitted to EPA, no later than September 1 of the year preceding the calendar year in which the surveys will be conducted.

(ii) The survey plan must be signed by a responsible corporate officer of the renewable fuel producer or importer, or responsible officer of the organization which arranges to have an independent surveyor conduct a program of renewable biomass compliance surveys, as applicable.

(iii) The survey plan must be sent to the following address: Director, Compliance and Innovative Strategies Division, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW. (6406J), Washington, DC 20460.

(iv) EPA will send a letter to the party submitting a survey plan under this section, either approving or disapproving the survey plan.

(v) EPA may revoke any approval of a survey plan under this section for cause, including an EPA determination that the approved survey plan had proved inadequate in practice or that it was not diligently implemented.

(vi) The approving official for an alternative quality assurance program under this section is the Director of the Compliance and Innovative Strategies Division, Office of Transportation and Air Quality.

(vii) Any notifications required under this paragraph (h) must be directed to the officer designated in paragraph (h)(6)(vi) of this section.

(7)(i) No later than December 1 of the year preceding the year in which the surveys will be conducted, the contract with the independent surveyor shall be in effect, and an amount of money necessary to carry out the entire survey plan shall be paid to the independent surveyor or placed into an escrow account with instructions to the escrow agent to pay the money to the independent surveyor during the course of the conduct of the survey plan.

(ii) No later than December 15 of the year preceding the year in which the surveys will be conducted, EPA must receive a copy of the contract with the independent surveyor, proof that the money necessary to carry out the survey plan has either been paid to the independent surveyor or placed into an escrow account, and, if placed into an escrow account, a copy of the escrow agreement, to be sent to the official designated in paragraph (h)(6)(iii) of this section.

(8) A failure of any renewable fuel producers or importer to fulfill or cause to be fulfilled any of the requirements of this paragraph (h) will cause the option for such party to use the alternative quality assurance requirements under this paragraph (h) to be void *ab initio.*

(i) Beginning July 1, 2010, all parties must keep transaction information sent to EMTS in addition to other records required under this section.

(j) A renewable fuel producer that produces fuel from separated yard and food waste as described in § 80.1426(f)(5)(i)(A) and (B) and separated municipal waste as described in § 80.1426(f)(5)(i)(C) shall keep all the following additional records:

(1) For separated yard and food waste as described in § 80.1426(f)(5)(i)(A) and (B):

(i) Documents demonstrating the amounts, by weight, purchased of separated yard and food waste for use as a feedstock in producing renewable fuel.

(ii) Such other records as may be requested by the Administrator.

(2) For separated municipal solid waste as described in § 80.1426(f)(5)(i)(C):

(i) Contracts and documents memorializing the sale of paper, cardboard, plastics, rubber, textiles, metals, and glass separated from municipal solid waste for recycling.

(ii) Documents demonstrating the amounts by weight purchased of post-recycled separated yard and food waste for use as a feedstock in producing renewable fuel.

(iii) Such other records as may be requested by the Administrator.

(k) A renewable fuel producer that generates RINs for biogas or electricity produced from renewable biomass (renewable electricity) for fuels that are used for transportation pursuant to § 80.1426(f)(10) and (11), or that uses process heat from biogas to generate RINs for renewable fuel pursuant to § 80.1426(f)(12) shall keep all of the following additional records:

(1) Contracts and documents memorializing the sale of biogas or renewable electricity for use as transportation fuel relied upon in § 80.1426(f)(10), § 80.1426(f)(11), or for use of biogas for use as process heat to make renewable fuel as relied upon in § 80.1426(f)(12), and the transfer of title of the biogas or renewable electricity and all associated environmental attributes from the point of generation to the transportation fueling facility.

(2) Documents demonstrating the volume and energy content of biogas, or energy content of renewable electricity relied upon under § 80.1426(f)(10) that was delivered to the transportation fueling facility.

(3) Documents demonstrating the volume and energy content of biogas, or energy content of renewable electricity relied upon under § 80.1426(f)(11) or biogas relied upon under § 80.1426(f)(12) that was placed into the common carrier pipeline (for biogas) or transmission line (for renewable electricity).

(4) Documents demonstrating the volume and energy content of biogas, or energy content of renewable electricity relied upon under § 80.1426(f)(12) at the point of distribution.

(5) Affidavits from the biogas, or renewable electricity producer and all parties that held title to the biogas or renewable electricity confirming that title and environmental attributes of the biogas or renewable electricity relied upon under § 80.1426(f)(10) and (11) or biogas relied upon under § 80.1426(f)(12) were delivered to the transportation fueling facility and only to the transportation fueling facility. The renewable fuel producer shall create and/or obtain these affidavits at least once per calendar quarter.

(6) The biogas or renewable electricity producer's Compliance Certification required under Title V of the Clean Air Act.

(7) Such other records as may be requested by the Administrator.

(l) The records required under paragraphs (a) through (d) and (f) through (k) of this section and under

§ 80.1453 shall be kept for five years from the date they were created, except that records related to transactions involving RINs shall be kept for five years from the date of the RIN transaction.

(m) The records required under paragraph (e) of this section shall be kept through calendar year 2022.

(n) On request by EPA, the records required under this section and under § 80.1453 must be made available to the Administrator or the Administrator's authorized representative. For records that are electronically generated or maintained, the equipment or software necessary to read the records shall be made available; or, if requested by EPA, electronic records shall be converted to paper documents.

(o) The records required in paragraphs (b)(3) and (c)(1) of this section must be transferred with any renewable fuel sent to the importer of that renewable fuel by any foreign producer not generating RINs for his renewable fuel.

(p) Copies of all reports required under § 80.1464.

§ 80.1455 What are the small volume provisions for renewable fuel production facilities and importers?

(a) *Standard volume threshold.* Renewable fuel production facilities located within the United States that produce less than 10,000 gallons of renewable fuel each year, and importers who import less than 10,000 gallons of renewable fuel each year, are not subject to the requirements of § 80.1426(a) and (e) related to the generation and assignment of RINs or to batches of renewable fuel. Except as stated in paragraph (b) of this section, such production facilities and importers that do not generate and/or assign RINs to batches of renewable fuel are also exempt from all the following requirements of this subpart:

(1) The registration requirements of § 80.1450.

(2) The reporting requirements of § 80.1451.

(3) The EMTS requirements of § 80.1452.

(4) The recordkeeping requirements of § 80.1454.

(5) The attest engagement requirements of § 80.1464.

(6) The production outlook report requirements of § 80.1449.

(b)(1) Renewable fuel production facilities and importers who produce or import less than 10,000 gallons of renewable fuel each year and that generate and/or assign RINs to batches of renewable fuel are subject to the provisions of §§ 80.1426, 80.1449 through 80.1452, 80.1454, and 80.1464.

(2) Renewable fuel production facilities and importers who produce or import less than 10,000 gallons of renewable fuel each year but wish to own RINs will be subject to all requirements stated in paragraphs (a)(1) through (a)(6) and (b)(1) of this section, and all other applicable requirements of this subpart M.

(c) *Temporary volume threshold.* Renewable fuel production facilities located within the United States that produce less than 125,000 gallons of renewable fuel each year are not subject to the requirements of § 80.1426(a) and (e) related to the generation and assignment of RINs to batches of renewable fuel for up to three years, beginning with the calendar year in which the production facility produces its first gallon of renewable fuel. Except as stated in paragraph (d) of this section, such production facilities that do not generate and/or assign RINs to batches of renewable fuel are also exempt from all the following requirements of this subpart for a maximum of three years:

(1) The registration requirements of § 80.1450.

(2) The reporting requirements of § 80.1451.

(3) The EMTS requirements of § 80.1452.

(4) The recordkeeping requirements of § 80.1454.

(5) The attest engagement requirements of § 80.1464.

(6) The production outlook report requirements of § 80.1449.

(d)(1) Renewable fuel production facilities who produce less than 125,000 gallons of renewable fuel each year and that generate and/or assign RINs to batches of renewable fuel are subject to the provisions of §§ 80.1426, 80.1449 through 80.1452, 80.1454, and 80.1464.

(2) Renewable fuel production facilities who produce less than 125,000 gallons of renewable fuel each year but wish to own RINs will be subject to all requirements stated in paragraphs (c)(1) through (c)(6) and (d)(1) of this section, and all other applicable requirements of this subpart M.

§ 80.1456 What are the provisions for cellulosic biofuel waiver credits?

(a) If EPA reduces the applicable volume of cellulosic biofuel pursuant to section 211(o)(7)(D)(i) of the Clean Air Act (42 U.S.C. 7545(o)(7)(D)(i)) for any given compliance year, then EPA will provide cellulosic biofuel waiver credits for purchase for that compliance year.

(1) The price of these cellulosic biofuel waiver credits will be set by EPA on an annual basis in accordance with paragraph (d) of this section.

(2) The total cellulosic biofuel waiver credits available will be equal to the reduced cellulosic biofuel volume established by EPA for the compliance year.

(b) *Use of cellulosic biofuel waiver credits.*

(1) Cellulosic biofuel waiver credits are only valid for use in the compliance year that they are made available.

(2) Cellulosic biofuel waiver credits are nonrefundable.

(3) Cellulosic biofuel waiver credits are nontransferable.

(4) Cellulosic biofuel waiver credits may only be used for an obligated party's current year cellulosic biofuel RVO and not towards any prior year deficit cellulosic biofuel volume obligations.

(c) *Purchase of cellulosic biofuel waiver credits.*

(1) Only parties with an RVO for cellulosic biofuel may purchase cellulosic biofuel waiver credits.

(2) Cellulosic biofuel waiver credits shall be purchased from EPA at the time that a party submits its annual compliance report to EPA pursuant to § 80.1451(a)(1).

(3) Parties may not purchase more cellulosic biofuel waiver credits than their current year cellulosic biofuel RVO minus cellulosic biofuel RINs with a D code of 3 that they own.

(4) Cellulosic biofuel waiver credits may only be used to meet an obligated party's cellulosic biofuel RVO.

(d) *Setting the price of cellulosic biofuel waiver credits.*

(1) The price for cellulosic biofuel waiver credits shall be set equal to the greater of:

(i) $0.25 per cellulosic biofuel waiver credit, adjusted for inflation in comparison to calendar year 2008; or

(ii) $3.00 less the wholesale price of gasoline per cellulosic biofuel waiver credit, adjusted for inflation in comparison to calendar year 2008.

(2) The wholesale price of gasoline will be calculated by averaging the most recent twelve monthly values for U.S. Total Gasoline Bulk Sales (Price) by Refiners as provided by the Energy Information Administration that are available as of September 30 of the year preceding the compliance period.

(3) The inflation adjustment will be calculated by comparing the most recent Consumer Price Index for All Urban Consumers (CPI–U) for All Items expenditure category as provided by the Bureau of Labor Statistics that is available at the time EPA sets the cellulosic biofuel standard to the most recent comparable value reported after December 31, 2008. When EPA must set the price of cellulosic biofuel waiver credits for a compliance year, EPA will calculate the new amounts for

paragraphs (d)(1)(i) and (ii) of this section for each year after 2008 and every month where data is available for the year preceding the compliance period at the time EPA sets the cellulosic biofuel standard.

(e) Cellulosic biofuel waiver credits under this section will only be able to be purchased on forms and following procedures prescribed by EPA.

§§ 80.1457–80.1459 [Reserved]

§ 80.1460 What acts are prohibited under the RFS program?

(a) *Renewable fuels producer or importer violation.* Except as provided in § 80.1455, no person shall produce or import a renewable fuel without complying with the requirements of § 80.1426 regarding the generation and assignment of RINs.

(b) *RIN generation and transfer violations.* No person shall do any of the following:

(1) Generate a RIN for a fuel that is not a renewable fuel, or for which the applicable renewable fuel volume was not produced.

(2) Create or transfer to any person a RIN that is invalid under § 80.1431.

(3) Transfer to any person a RIN that is not properly identified as required under § 80.1425.

(4) Transfer to any person a RIN with a K code of 1 without transferring an appropriate volume of renewable fuel to the same person on the same day.

(5) Introduce into commerce any renewable fuel produced from a feedstock or through a process that is not described in the person's registration information.

(c) *RIN use violations.* No person shall do any of the following:

(1) Fail to acquire sufficient RINs, or use invalid RINs, to meet the person's RVOs under § 80.1427.

(2) Fail to acquire sufficient RINs to meet the person's RVOs under § 80.1430.

(3) Use a validly generated RIN to meet the person's RVOs under § 80.1427, or separate and transfer a validly generated RIN, where the person ultimately uses the renewable fuel volume associated with the RIN in an application other than for use as transportation fuel, jet fuel, or heating oil (as defined in § 80.1401).

(d) *RIN retention violation.* No person shall retain RINs in violation of the requirements in § 80.1428(a)(5).

(e) *Causing a violation.* No person shall cause another person to commit an act in violation of any prohibited act under this section.

(f) *Failure to meet a requirement.* No person shall fail to meet any requirement that applies to that person under this subpart.

§ 80.1461 Who is liable for violations under the RFS program?

(a) *Liability for violations of prohibited acts.*

(1) Any person who violates a prohibition under § 80.1460(a) through (d) is liable for the violation of that prohibition.

(2) Any person who causes another person to violate a prohibition under § 80.1460(a) through (d) is liable for a violation of § 80.1460(e).

(b) *Liability for failure to meet other provisions of this subpart.*

(1) Any person who fails to meet a requirement of any provision of this subpart is liable for a violation of that provision.

(2) Any person who causes another person to fail to meet a requirement of any provision of this subpart is liable for causing a violation of that provision.

(c) *Parent corporation liability.* Any parent corporation is liable for any violation of this subpart that is committed by any of its subsidiaries.

(d) *Joint venture liability.* Each partner to a joint venture is jointly and severally liable for any violation of this subpart that is committed by the joint venture operation.

§ 80.1462 [Reserved]

§ 80.1463 What penalties apply under the RFS program?

(a) Any person who is liable for a violation under § 80.1461 is subject a to civil penalty as specified in sections 205 and 211(d) of the Clean Air Act, for every day of each such violation and the amount of economic benefit or savings resulting from each violation.

(b) Any person liable under § 80.1461(a) for a violation of § 80.1460(c) for failure to meet its RVOs, or § 80.1460(e) for causing another person to fail to meet their RVOs, during any averaging period, is subject to a separate day of violation for each day in the averaging period.

(c) Any person liable under § 80.1461(b) for failure to meet, or causing a failure to meet, a requirement of any provision of this subpart is liable for a separate day of violation for each day such a requirement remains unfulfilled.

§ 80.1464 What are the attest engagement requirements under the RFS program?

The requirements regarding annual attest engagements in §§ 80.125 through 80.127, and 80.130, also apply to any attest engagement procedures required under this subpart M. In addition to any other applicable attest engagement procedures, such as the requirements in §§ 80.1465 and 80.1466, the following annual attest engagement procedures are required under this subpart.

(a) *Obligated parties and exporters.* The following attest procedures shall be completed for any obligated party as stated in § 80.1406(a) or exporter of renewable fuel:

(1) *Annual compliance demonstration report.*

(i) Obtain and read a copy of the annual compliance demonstration report required under § 80.1451(a)(1) which contains information regarding all the following:

(A) The obligated party's volume of all products listed in § 80.1407(c) and (e), or the exporter's volume of each category of exported renewable fuel identified in § 80.1430 (b)(1)(i), (b)(1)(ii), (b)(2)(i), and (b)(2)(ii).

(B) RVOs.

(C) RINs used for compliance.

(ii) Obtain documentation of any volumes of renewable fuel used in products listed in § 80.1407(c) and (e) at the refinery or import facility or exported during the reporting year; compute and report as a finding the total volumes of renewable fuel represented in these documents.

(iii) For obligated parties, compare the volumes of products listed in § 80.1407(c) and (e) reported to EPA in the report required under § 80.1451(a)(1) with the volumes, excluding any renewable fuel volumes, contained in the inventory reconciliation analysis under § 80.133 and the volume of non-renewable diesel produced or imported. Verify that the volumes reported to EPA agree with the volumes in the inventory reconciliation analysis and the volumes of non-renewable diesel produced or imported, and report as a finding any exception.

(iv) For exporters, perform all of the following:

(A) Obtain the database, spreadsheet, or other documentation that the exporter maintains for purposes for all exported renewable fuel.

(B) Compare the volume of products identified in these documents with the volumes reported to EPA.

(C) Verify that the volumes reported to EPA agree with the volumes identified in the database, spreadsheet, or other documentation, and report as a finding any exception.

(v) Compute and report as a finding the obligated party's or exporter's RVOs, and any deficit RVOs carried over from the previous year or carried into the subsequent year, and verify that the values agree with the values reported to EPA.

(vi) Obtain the database, spreadsheet, or other documentation for all RINs by type of renewable fuel used for compliance during the year being reviewed; calculate the total number of RINs associated with each type of renewable fuel used for compliance by year of generation represented in these documents; state whether this information agrees with the report to EPA and report as a finding any exceptions.

(vii) For exporters, perform all the following:

(A) Select sample batches in accordance with the guidelines in § 80.127 from each separate category of renewable fuel exported and identified in § 80.1451(a).

(B) Obtain invoices, bills of lading and other documentation for the representative samples. Calculate the RVO for the exported fuel, state whether this information agrees with the report to EPA and report as a finding any exception.

(C) State whether any of these documents refer to the exported fuel as advanced biofuel or cellulosic biofuel, and report as a finding whether or not the exporter calculated an advanced biofuel or cellulosic biofuel RVO for these fuels pursuant to § 80.1430(b)(2)(i) or (ii).

(2) *RIN transaction reports.*

(i) Obtain and read copies of a representative sample, selected in accordance with the guidelines in § 80.127, of each RIN transaction type (RINs purchased, RINs sold, RINs retired, RINs reinstated) included in the RIN transaction reports required under § 80.1451(a)(2) for the compliance year.

(ii) Obtain contracts, invoices, or other documentation for the representative samples of RIN transactions; compute the transaction types, transaction dates, and RINs traded; state whether the information agrees with the party's reports to EPA and report as a finding any exceptions.

(3) *RIN activity reports.*

(i) Obtain and read copies of all quarterly RIN activity reports required under § 80.1451(a)(3) for the compliance year.

(ii) Obtain the database, spreadsheet, or other documentation used to generate the information in the RIN activity reports; compare the RIN transaction samples reviewed under paragraph (a)(2) of this section with the corresponding entries in the database or spreadsheet and report as a finding any discrepancies; compute the total number of current-year and prior-year RINs owned at the start and end of each quarter, purchased, sold, retired and reinstated, and for parties that reported RIN activity for RINs assigned to a volume of renewable fuel, the volume and type of renewable fuel (as defined in § 80.1401) of renewable fuel owned at the end of each quarter; as represented in these documents; and state whether this information agrees with the party's reports to EPA.

(b) *Renewable fuel producers and RIN-generating importers.* The following attest procedures shall be completed for any RIN-generating renewable fuel producer or importer:

(1) *RIN generation reports.*

(i) Obtain and read copies of the reports required under § 80.1451(b)(1), (e), and (d) for the compliance year.

(ii) Obtain production data for each renewable fuel batch by type of renewable fuel that was produced or imported during the year being reviewed; compute the RIN numbers, production dates, types, volumes of denaturant and applicable equivalence values, and production volumes for each batch; report the total RINs generated during the year being reviewed; and state whether this information agrees with the party's reports to EPA. Report as a finding any exceptions.

(iii) Verify that the proper number of RINs were generated and assigned pursuant to the requirements of § 80.1426 for each batch of renewable fuel produced or imported.

(iv) Obtain product transfer documents for a representative sample, selected in accordance with the guidelines in § 80.127, of renewable fuel batches produced or imported during the year being reviewed; verify that the product transfer documents contain the applicable information required under § 80.1453; verify the accuracy of the information contained in the product transfer documents; report as a finding any product transfer document that does not contain the applicable information required under § 80.1453.

(v)(A) Obtain documentation, as required under § 80.1451(b), (d), and (e) associated with feedstock purchases for a representative sample, selected in accordance with the guidelines in § 80.127, of renewable fuel batches produced or imported during the year being reviewed.

(B) Verify that feedstocks were properly identified in the reports and met the definition of renewable biomass in § 80.1401.

(2) *RIN transaction reports.*

(i) Obtain and read copies of a representative sample, selected in accordance with the guidelines in § 80.127, of each transaction type (RINs purchased, RINs sold, RINs retired, RINs reinstated) included in the RIN transaction reports required under § 80.1451(b)(2) for the compliance year.

(ii) Obtain contracts, invoices, or other documentation for the representative samples of RIN transactions; compute the transaction types, transaction dates, and the RINs traded; state whether this information agrees with the party's reports to EPA and report as a finding any exceptions.

(3) *RIN activity reports.*

(i) Obtain and read copies of the quarterly RIN activity reports required under § 80.1451(b)(3) for the compliance year.

(ii) Obtain the database, spreadsheet, or other documentation used to generate the information in the RIN activity reports; compare the RIN transaction samples reviewed under paragraph (b)(2) of this section with the corresponding entries in the database or spreadsheet and report as a finding any discrepancies; report the total number of each RIN generated during each quarter and compute and report the total number of current-year and prior-year RINs owned at the start and end of each quarter, purchased, sold, retired and reinstated, and for parties that reported RIN activity for RINs assigned to a volume of renewable fuel, the volume of renewable fuel owned at the end of each quarter, as represented in these documents; and state whether this information agrees with the party's reports to EPA.

(4) *Independent Third Party Engineering Review.*

(i) Obtain documentation of independent third party engineering reviews required under § 80.1450(b)(2).

(ii) Review and verify the written verification and records generated as part of the independent third party engineering review.

(c) *Other parties owning RINs.* The following attest procedures shall be completed for any party other than an obligated party or renewable fuel producer or importer that owns any RINs during a calendar year:

(1) *RIN transaction reports.*

(i) Obtain and read copies of a representative sample, selected in accordance with the guidelines in § 80.127, of each RIN transaction type (RINs purchased, RINs sold, RINs retired, RINs separated, RINs reinstated) included in the RIN transaction reports required under § 80.1451(c)(1) for the compliance year.

(ii) Obtain contracts, invoices, or other documentation for the representative samples of RIN transactions; compute the transaction types, transaction dates, and the RINs traded; state whether this information

agrees with the party's reports to EPA and report as a finding any exceptions.

(2) *RIN activity reports.*

(i) Obtain and read copies of the quarterly RIN activity reports required under § 80.1451(c)(2) for the compliance year.

(ii) Obtain the database, spreadsheet, or other documentation used to generate the information in the RIN activity reports; compare the RIN transaction samples reviewed under paragraph (c)(1) of this section with the corresponding entries in the database or spreadsheet and report as a finding any discrepancies; compute the total number of current-year and prior-year RINs owned at the start and end of each quarter, purchased, sold, retired, separated, and reinstated and for parties that reported RIN activity for RINs assigned to a volume of renewable fuel, the volume of renewable fuel owned at the end of each quarter, as represented in these documents; and state whether this information agrees with the party's reports to EPA.

(d) For each compliance year, each party subject to the attest engagement requirements under this section shall cause the reports required under this section to be submitted to EPA by May 31 of the year following the compliance year.

(e) The party conducting the procedures under this section shall obtain a written representation from a company representative that the copies of the reports required under this section are complete and accurate copies of the reports filed with EPA.

(f) The party conducting the procedures under this section shall identify and report as a finding the commercial computer program used by the party to track the data required by the regulations in this subpart, if any.

§ 80.1465 What are the additional requirements under this subpart for foreign small refiners, foreign small refineries, and importers of RFS–FRFUEL?

(a) *Definitions.* The following additional definitions apply for this subpart:

(1) *Foreign refinery* is a refinery that is located outside the United States, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (collectively referred to in this section as "the United States").

(2) *Foreign refiner* is a person that meets the definition of refiner under § 80.2(i) for a foreign refinery.

(3) *Foreign small refinery* is a foreign refinery that has received a small refinery exemption under § 80.1441.

(4) *Foreign small refiner* is a foreign refiner that has received a small refiner exemption under § 80.1442.

(5) *RFS–FRFUEL* is transportation fuel produced at a foreign refinery that has received a small refinery exemption under § 80.1441 or by a foreign refiner with a small refiner exemption under § 80.1442.

(6) *Non-RFS–FRFUEL* is one of the following:

(i) Transportation fuel produced at a foreign refinery that has received a small refinery exemption under § 80.1441 or by a foreign refiner with a small refiner exemption under § 80.1442.

(ii) Transportation fuel produced at a foreign refinery that has not received a small refinery exemption under § 80.1441 or by a foreign refiner that has not received a small refiner exemption under § 80.1442.

(b) *General requirements for RFS–FRFUEL for foreign small refineries and small refiners.* A foreign refiner must do all the following:

(1) Designate, at the time of production, each batch of transportation fuel produced at the foreign refinery that is exported for use in the United States as RFS–FRFUEL.

(2) Meet all requirements that apply to refiners who have received a small refinery or small refiner exemption under this subpart.

(c) *Designation, foreign small refiner certification, and product transfer documents.*

(1) Any foreign small refiner must designate each batch of RFS–FRFUEL as such at the time the transportation fuel is produced.

(2) On each occasion when RFS–FRFUEL is loaded onto a vessel or other transportation mode for transport to the United States, the foreign small refiner shall prepare a certification for each batch of RFS–FRFUEL that meets all the following requirements:

(i) The certification shall include the report of the independent third party under paragraph (d) of this section, and all the following additional information:

(A) The name and EPA registration number of the refinery that produced the RFS–FRFUEL.

(B) [Reserved]

(ii) The identification of the transportation fuel as RFS–FRFUEL.

(iii) The volume of RFS–FRFUEL being transported, in gallons.

(3) On each occasion when any person transfers custody or title to any RFS–FRFUEL prior to its being imported into the United States, it must include all the following information as part of the product transfer document information:

(i) Designation of the transportation fuel as RFS–FRFUEL.

(ii) The certification required under paragraph (c)(2) of this section.

(d) *Load port independent testing and refinery identification.*

(1) On each occasion that RFS–FRFUEL is loaded onto a vessel for transport to the United States the foreign small refiner shall have an independent third party do all the following:

(i) Inspect the vessel prior to loading and determine the volume of any tank bottoms.

(ii) Determine the temperature-corrected volume of RFS–FRFUEL loaded onto the vessel (exclusive of any tank bottoms before loading).

(iii) Obtain the EPA-assigned registration number of the foreign refinery.

(iv) Determine the name and country of registration of the vessel used to transport the RFS–FRFUEL to the United States.

(v) Determine the date and time the vessel departs the port serving the foreign refinery.

(vi) Review original documents that reflect movement and storage of the RFS–FRFUEL from the foreign refinery to the load port, and from this review determine:

(A) The refinery at which the RFS–FRFUEL was produced; and

(B) That the RFS–FRFUEL remained segregated from Non-RFS–FRFUEL and other RFS–FRFUEL produced at a different refinery.

(2) The independent third party shall submit a report to all the following:

(i) The foreign small refiner or owner of the foreign small refinery, containing the information required under paragraph (d)(1) of this section, to accompany the product transfer documents for the vessel.

(ii) The Administrator, containing the information required under paragraph (d)(1) of this section, within thirty days following the date of the independent third party's inspection. This report shall include a description of the method used to determine the identity of the refinery at which the transportation fuel was produced, assurance that the transportation fuel remained segregated as specified in paragraph (j)(1) of this section, and a description of the transportation fuel's movement and storage between production at the source refinery and vessel loading.

(3) The independent third party must do all the following:

(i) Be approved in advance by EPA, based on a demonstration of ability to perform the procedures required in this paragraph (d).

(ii) Be independent under the criteria specified in § 80.65(f)(2)(iii).

(iii) Sign a commitment that contains the provisions specified in paragraph (f) of this section with regard to activities, facilities, and documents relevant to compliance with the requirements of this paragraph (d).

(e) *Comparison of load port and port of entry testing.*

(1)(i) Any foreign small refiner or foreign small refinery and any United States importer of RFS–FRFUEL shall compare the results from the load port testing under paragraph (d) of this section, with the port of entry testing as reported under paragraph (k) of this section, for the volume of transportation fuel, except as specified in paragraph (e)(1)(ii) of this section.

(ii) Where a vessel transporting RFS–FRFUEL offloads this transportation fuel at more than one United States port of entry, the requirements of paragraph (e)(1)(i) of this section do not apply at subsequent ports of entry if the United States importer obtains a certification from the vessel owner that the requirements of paragraph (e)(1)(i) of this section were met and that the vessel has not loaded any transportation fuel or blendstock between the first United States port of entry and any subsequent port of entry.

(2) If the temperature-corrected volumes determined at the port of entry and at the load port differ by more than one percent, the United States importer and the foreign small refiner or foreign small refinery shall not treat the transportation fuel as RFS–FRFUEL and the importer shall include the volume of transportation fuel in the importer's RFS compliance calculations.

(f) *Foreign refiner commitments.* Any foreign small refinery or foreign small refiner shall commit to and comply with the provisions contained in this paragraph (f) as a condition to being approved for a small refinery or small refiner exemption under this subpart.

(1) Any United States Environmental Protection Agency inspector or auditor must be given full, complete, and immediate access to conduct inspections and audits of the foreign refinery.

(i) Inspections and audits may be either announced in advance by EPA, or unannounced.

(ii) Access will be provided to any location where:

(A) Transportation fuel is produced;

(B) Documents related to refinery operations are kept; and

(C) RFS–FRFUEL is stored or transported between the foreign refinery and the United States, including storage tanks, vessels, and pipelines.

(iii) EPA inspectors and auditors may be EPA employees or contractors to EPA.

(iv) Any documents requested that are related to matters covered by inspections and audits must be provided to an EPA inspector or auditor on request.

(v) Inspections and audits may include review and copying of any documents related to all the following:

(A) The volume of RFS–FRFUEL.

(B) The proper classification of transportation fuel as being RFS–FRFUEL or as not being RFS–FRFUEL.

(C) Transfers of title or custody to RFS–FRFUEL.

(D) Testing of RFS–FRFUEL.

(E) Work performed and reports prepared by independent third parties and by independent auditors under the requirements of this section, including work papers.

(vi) Inspections and audits may include interviewing employees.

(vii) Any employee of the foreign refiner must be made available for interview by the EPA inspector or auditor, on request, within a reasonable time period.

(viii) English language translations of any documents must be provided to an EPA inspector or auditor, on request, within 10 working days.

(ix) English language interpreters must be provided to accompany EPA inspectors and auditors, on request.

(2) An agent for service of process located in the District of Columbia shall be named, and service on this agent constitutes service on the foreign refiner or any employee of the foreign refiner for any action by EPA or otherwise by the United States related to the requirements of this subpart.

(3) The forum for any civil or criminal enforcement action related to the provisions of this section for violations of the Clean Air Act or regulations promulgated thereunder shall be governed by the Clean Air Act, including the EPA administrative forum where allowed under the Clean Air Act.

(4) United States substantive and procedural laws shall apply to any civil or criminal enforcement action against the foreign refiner or any employee of the foreign refiner related to the provisions of this section.

(5) Submitting an application for a small refinery or small refiner exemption, or producing and exporting transportation fuel under such exemption, and all other actions to comply with the requirements of this subpart relating to such exemption constitute actions or activities covered by and within the meaning of the provisions of 28 U.S.C. 1605(a)(2), but solely with respect to actions instituted against the foreign refiner, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign refiner under this subpart, including conduct that violates the False Statements Accountability Act of 1996 (18 U.S.C. 1001) and section 113(c)(2) of the Clean Air Act (42 U.S.C. 7413).

(6) The foreign refiner, or its agents or employees, will not seek to detain or to impose civil or criminal remedies against EPA inspectors or auditors, whether EPA employees or EPA contractors, for actions performed within the scope of EPA employment or contract related to the provisions of this section.

(7) The commitment required by this paragraph (f) shall be signed by the owner or president of the foreign refiner business.

(8) In any case where RFS–FRFUEL produced at a foreign refinery is stored or transported by another company between the refinery and the vessel that transports the RFS–FRFUEL to the United States, the foreign refiner shall obtain from each such other company a commitment that meets the requirements specified in paragraphs (f)(1) through (f)(7) of this section, and these commitments shall be included in the foreign refiner's application for a small refinery or small refiner exemption under this subpart.

(g) *Sovereign immunity.* By submitting an application for a small refinery or small refiner exemption under this subpart, or by producing and exporting transportation fuel to the United States under such exemption, the foreign refiner, and its agents and employees, without exception, become subject to the full operation of the administrative and judicial enforcement powers and provisions of the United States without limitation based on sovereign immunity, with respect to actions instituted against the foreign refiner, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign refiner under this subpart, including conduct that violates the False Statements Accountability Act of 1996 (18 U.S.C. 1001) and section 113(c)(2) of the Clean Air Act (42 U.S.C. 7413).

(h) *Bond posting.* Any foreign refiner shall meet the requirements of this paragraph (h) as a condition to approval of a foreign small refinery or foreign small refiner exemption under this subpart.

(1) The foreign refiner shall post a bond of the amount calculated using the following equation:

Bond = G * $ 0.01

Where:

Bond = amount of the bond in United States dollars.

G = the largest volume of transportation fuel produced at the foreign refinery and exported to the United States, in gallons, during a single calendar year among the most recent of the following calendar years, up to a maximum of five calendar years: the calendar year immediately preceding the date the refinery's or refiner's application is submitted, the calendar year the application is submitted, and each succeeding calendar year.

(2) Bonds shall be posted by:

(i) Paying the amount of the bond to the Treasurer of the United States;

(ii) Obtaining a bond in the proper amount from a third party surety agent that is payable to satisfy United States administrative or judicial judgments against the foreign refiner, provided EPA agrees in advance as to the third party and the nature of the surety agreement; or

(iii) An alternative commitment that results in assets of an appropriate liquidity and value being readily available to the United States, provided EPA agrees in advance as to the alternative commitment.

(3) Bonds posted under this paragraph (h) shall:

(i) Be used to satisfy any judicial judgment that results from an administrative or judicial enforcement action for conduct in violation of this subpart, including where such conduct violates the False Statements Accountability Act of 1996 (18 U.S.C. 1001) and section 113(c)(2) of the Clean Air Act (42 U.S.C. 7413);

(ii) Be provided by a corporate surety that is listed in the United States Department of Treasury Circular 570 "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds"; and

(iii) Include a commitment that the bond will remain in effect for at least five years following the end of latest annual reporting period that the foreign refiner produces transportation fuel pursuant to the requirements of this subpart.

(4) On any occasion a foreign refiner bond is used to satisfy any judgment, the foreign refiner shall increase the bond to cover the amount used within 90 days of the date the bond is used.

(5) If the bond amount for a foreign refiner increases, the foreign refiner shall increase the bond to cover the shortfall within 90 days of the date the bond amount changes. If the bond amount decreases, the foreign refiner may reduce the amount of the bond beginning 90 days after the date the bond amount changes.

(i) *English language reports.* Any document submitted to EPA by a foreign refiner shall be in English, or shall include an English language translation.

(j) *Prohibitions.*

(1) No person may combine RFS–FRFUEL with any Non-RFS–FRFUEL, and no person may combine RFS–FRFUEL with any RFS–FRFUEL produced at a different refinery, until the importer has met all the requirements of paragraph (k) of this section.

(2) No foreign refiner or other person may cause another person to commit an action prohibited in paragraph (j)(1) of this section, or that otherwise violates the requirements of this section.

(k) *United States importer requirements.* Any United States importer of RFS–FRFUEL shall meet the following requirements:

(1) Each batch of imported RFS–FRFUEL shall be classified by the importer as being RFS–FRFUEL.

(2) Transportation fuel shall be classified as RFS–FRFUEL according to the designation by the foreign refiner if this designation is supported by product transfer documents prepared by the foreign refiner as required in paragraph (c) of this section. Additionally, the importer shall comply with all requirements of this subpart applicable to importers.

(3) For each transportation fuel batch classified as RFS–FRFUEL, any United States importer shall have an independent third party do all the following:

(i) Determine the volume of transportation fuel in the vessel.

(ii) Use the foreign refiner's RFS–FRFUEL certification to determine the name and EPA-assigned registration number of the foreign refinery that produced the RFS–FRFUEL.

(iii) Determine the name and country of registration of the vessel used to transport the RFS–FRFUEL to the United States.

(iv) Determine the date and time the vessel arrives at the United States port of entry.

(4) Any importer shall submit reports within 30 days following the date any vessel transporting RFS–FRFUEL arrives at the United States port of entry to:

(i) The Administrator, containing the information determined under paragraph (k)(3) of this section; and

(ii) The foreign refiner, containing the information determined under paragraph (k)(3)(i) of this section, and including identification of the port at which the product was off loaded.

(5) Any United States importer shall meet all other requirements of this subpart for any imported transportation fuel that is not classified as RFS–FRFUEL under paragraph (k)(2) of this section.

(l) *Truck imports of RFS–FRFUEL produced at a foreign refinery.*

(1) Any refiner whose RFS–FRFUEL is transported into the United States by truck may petition EPA to use alternative procedures to meet all the following requirements:

(i) Certification under paragraph (c)(2) of this section.

(ii) Load port and port of entry testing requirements under paragraphs (d) and (e) of this section.

(iii) Importer testing requirements under paragraph (k)(3) of this section.

(2) These alternative procedures must ensure RFS–FRFUEL remains segregated from Non-RFS–FRFUEL until it is imported into the United States. The petition will be evaluated based on whether it adequately addresses all the following:

(i) Provisions for monitoring pipeline shipments, if applicable, from the refinery, that ensure segregation of RFS–FRFUEL from that refinery from all other transportation fuel.

(ii) Contracts with any terminals and/or pipelines that receive and/or transport RFS–FRFUEL that prohibit the commingling of RFS–FRFUEL with Non-RFS–FRFUEL or RFS–FRFUEL from other foreign refineries.

(iii) Attest procedures to be conducted annually by an independent third party that review loading records and import documents based on volume reconciliation, or other criteria, to confirm that all RFS–FRFUEL remains segregated throughout the distribution system.

(3) The petition described in this section must be submitted to EPA along with the application for a small refinery or small refiner exemption under this subpart.

(m) *Additional attest requirements for importers of RFS–FRFUEL.* The following additional procedures shall be carried out by any importer of RFS–FRFUEL as part of the attest engagement required for importers under this subpart M.

(1) Obtain listings of all tenders of RFS–FRFUEL. Agree the total volume of tenders from the listings to the transportation fuel inventory reconciliation analysis required in § 80.133(b), and to the volumes determined by the third party under paragraph (d) of this section.

(2) For each tender under paragraph (m)(1) of this section, where the transportation fuel is loaded onto a marine vessel, report as a finding the name and country of registration of each vessel, and the volumes of RFS–FRFUEL loaded onto each vessel.

(3) Select a sample from the list of vessels identified per paragraph (m)(2) of this section used to transport RFS–FRFUEL, in accordance with the guidelines in § 80.127, and for each vessel selected perform all the following:

(i) Obtain the report of the independent third party, under paragraph (d) of this section.

(A) Agree the information in these reports with regard to vessel identification and transportation fuel volume.

(B) Identify, and report as a finding, each occasion the load port and port of entry volume results differ by more than the amount allowed in paragraph (e)(2) of this section, and determine whether all of the requirements of paragraph (e)(2) of this section have been met.

(ii) Obtain the documents used by the independent third party to determine transportation and storage of the RFS–FRFUEL from the refinery to the load port, under paragraph (d) of this section. Obtain tank activity records for any storage tank where the RFS–FRFUEL is stored, and pipeline activity records for any pipeline used to transport the RFS–FRFUEL prior to being loaded onto the vessel. Use these records to determine whether the RFS–FRFUEL was produced at the refinery that is the subject of the attest engagement, and whether the RFS–FRFUEL was mixed with any Non-RFS–FRFUEL or any RFS–FRFUEL produced at a different refinery.

(4) Select a sample from the list of vessels identified per paragraph (m)(2) of this section used to transport RFS–FRFUEL, in accordance with the guidelines in § 80.127, and for each vessel selected perform all of the following:

(i) Obtain a commercial document of general circulation that lists vessel arrivals and departures, and that includes the port and date of departure of the vessel, and the port of entry and date of arrival of the vessel.

(ii) Agree the vessel's departure and arrival locations and dates from the independent third party and United States importer reports to the information contained in the commercial document.

(5) Obtain separate listings of all tenders of RFS–FRFUEL, and perform all the following:

(i) Agree the volume of tenders from the listings to the transportation fuel inventory reconciliation analysis in § 80.133(b).

(ii) Obtain a separate listing of the tenders under this paragraph (m)(5) where the transportation fuel is loaded onto a marine vessel. Select a sample from this listing in accordance with the guidelines in § 80.127, and obtain a commercial document of general circulation that lists vessel arrivals and departures, and that includes the port and date of departure and the ports and dates where the transportation fuel was off loaded for the selected vessels. Determine and report as a finding the country where the transportation fuel was off loaded for each vessel selected.

(6) In order to complete the requirements of this paragraph (m), an auditor shall do all the following:

(i) Be independent of the foreign refiner or importer.

(ii) Be licensed as a Certified Public Accountant in the United States and a citizen of the United States, or be approved in advance by EPA based on a demonstration of ability to perform the procedures required in §§ 80.125 through 80.127, 80.130, 80.1464, and this paragraph (m).

(iii) Sign a commitment that contains the provisions specified in paragraph (f) of this section with regard to activities and documents relevant to compliance with the requirements of §§ 80.125 through 80.127, 80.130, 80.1464, and this paragraph (m).

(n) *Withdrawal or suspension of foreign small refiner or foreign small refinery status.* EPA may withdraw or suspend a foreign refiner's small refinery or small refiner exemption where:

(1) A foreign refiner fails to meet any requirement of this section;

(2) A foreign government fails to allow EPA inspections as provided in paragraph (f)(1) of this section;

(3) A foreign refiner asserts a claim of, or a right to claim, sovereign immunity in an action to enforce the requirements in this subpart; or

(4) A foreign refiner fails to pay a civil or criminal penalty that is not satisfied using the foreign refiner bond specified in paragraph (h) of this section.

(o) *Additional requirements for applications, reports and certificates.* Any application for a small refinery or small refiner exemption, alternative procedures under paragraph (l) of this section, any report, certification, or other submission required under this section shall be:

(1) Submitted in accordance with procedures specified by the Administrator, including use of any forms that may be specified by the Administrator.

(2) Signed by the president or owner of the foreign refiner company, or by that person's immediate designee, and shall contain the following declaration: "I hereby certify: (1) That I have actual authority to sign on behalf of and to bind [insert name of foreign refiner] with regard to all statements contained herein; (2) that I am aware that the information contained herein is being Certified, or submitted to the United States Environmental Protection Agency, under the requirements of 40 CFR part 80, subpart M, and that the information is material for determining compliance under these regulations; and (3) that I have read and understand the information being Certified or submitted, and this information is true, complete and correct to the best of my knowledge and belief after I have taken reasonable and appropriate steps to verify the accuracy thereof. I affirm that I have read and understand the provisions of 40 CFR part 80, subpart M, including 40 CFR 80.1465 apply to [INSERT NAME OF FOREIGN REFINER]. Pursuant to Clean Air Act section 113(c) and 18 U.S.C. 1001, the penalty for furnishing false, incomplete or misleading information in this certification or submission is a fine of up to $10,000 U.S., and/or imprisonment for up to five years."

§ 80.1466 What are the additional requirements under this subpart for RIN-generating foreign producers and importers of renewable fuels for which RINs have been generated by the foreign producer?

(a) *Foreign producer of renewable fuel.* For purposes of this subpart, a foreign producer of renewable fuel is a person located outside the United States, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (collectively referred to in this section as "the United States") that has been approved by EPA to generate RINs for renewable fuel it produces for export to the United States, hereinafter referred to as a "foreign producer" under this section.

(b) *General requirements.* An approved foreign producer under this section must meet all requirements that apply to renewable fuel producers under this subpart.

(c) *Designation, foreign producer certification, and product transfer documents.*

(1) Any approved foreign producer under this section that generates RINs for renewable fuel must designate each batch of such renewable fuel as "RFS–

FRRF" at the time the renewable fuel is produced.

(2) On each occasion when RFS–FRRF is transferred for transport to a vessel or loaded onto a vessel or other transportation mode for transport to the United States, the RIN-generating foreign producer shall prepare a certification for each batch of RFS–FRRF; the certification shall include the report of the independent third party under paragraph (d) of this section, and all the following additional information:

(i) The name and EPA registration number of the company that produced the RFS–FRRF.

(ii) The identification of the renewable fuel as RFS–FRRF.

(iii) The identification of the renewable fuel by type, D code, and number of RINs generated.

(iv) The volume of RFS–FRRF, standardized per § 80.1426(f)(8), being transported, in gallons.

(3) On each occasion when any person transfers custody or title to any RFS–FRRF prior to its being imported into the United States, it must include all the following information as part of the product transfer document information:

(i) Designation of the renewable fuel as RFS–FRRF.

(ii) The certification required under paragraph (c)(2) of this section.

(d) *Load port independent testing and producer identification.*

(1) On each occasion that RFS–FRRF is loaded onto a vessel for transport to the United States the RIN-generating foreign producer shall have an independent third party do all the following:

(i) Inspect the vessel prior to loading and determine the volume of any tank bottoms.

(ii) Determine the volume of RFS–FRRF, standardized per § 80.1426(f)(8), loaded onto the vessel (exclusive of any tank bottoms before loading).

(iii) Obtain the EPA-assigned registration number of the foreign producer.

(iv) Determine the name and country of registration of the vessel used to transport the RFS–FRRF to the United States.

(v) Determine the date and time the vessel departs the port serving the foreign producer.

(vi) Review original documents that reflect movement and storage of the RFS–FRRF from the RIN-generating foreign producer to the load port, and from this review determine all the following:

(A) The facility at which the RFS–FRRF was produced.

(B) That the RFS–FRRF remained segregated from Non-RFS–FRRF and other RFS–FRRF produced by a different foreign producer.

(2) The independent third party shall submit a report to the following:

(i) The RIN-generating foreign producer, containing the information required under paragraph (d)(1) of this section, to accompany the product transfer documents for the vessel.

(ii) The Administrator, containing the information required under paragraph (d)(1) of this section, within thirty days following the date of the independent third party's inspection. This report shall include a description of the method used to determine the identity of the foreign producer facility at which the renewable fuel was produced, assurance that the renewable fuel remained segregated as specified in paragraph (j)(1) of this section, and a description of the renewable fuel's movement and storage between production at the source facility and vessel loading.

(3) The independent third party must:

(i) Be approved in advance by EPA, based on a demonstration of ability to perform the procedures required in this paragraph (d);

(ii) Be independent under the criteria specified in § 80.65(e)(2)(iii); and

(iii) Sign a commitment that contains the provisions specified in paragraph (f) of this section with regard to activities, facilities and documents relevant to compliance with the requirements of this paragraph (d).

(e) *Comparison of load port and port of entry testing.*

(1)(i) Any RIN-generating foreign producer and any United States importer of RFS–FRRF shall compare the results from the load port testing under paragraph (d) of this section, with the port of entry testing as reported under paragraph (k) of this section, for the volume of renewable fuel, standardized per § 80.1426(f)(8), except as specified in paragraph (e)(1)(ii) of this section.

(ii) Where a vessel transporting RFS–FRRF offloads the renewable fuel at more than one United States port of entry, the requirements of paragraph (e)(1)(i) of this section do not apply at subsequent ports of entry if the United States importer obtains a certification from the vessel owner that the requirements of paragraph (e)(1)(i) of this section were met and that the vessel has not loaded any renewable fuel between the first United States port of entry and the subsequent ports of entry.

(2)(i) If the temperature-corrected volumes, after accounting for tank bottoms, determined at the port of entry and at the load port differ by more than one percent, the number of RINs associated with the renewable fuel shall be calculated based on the lesser of the two volumes in paragraph (e)(1)(i) of this section.

(ii) Where the port of entry volume is the lesser of the two volumes in paragraph (e)(1)(i) of this section, the importer shall calculate the difference between the number of RINs originally assigned by the foreign producer and the number of RINs calculated under § 80.1426 for the volume of renewable fuel as measured at the port of entry, and acquire and retire that amount of RINs in accordance with paragraph (k)(3) of this section.

(f) *Foreign producer commitments.* Any RIN-generating foreign producer shall commit to and comply with the provisions contained in this paragraph (f) as a condition to being approved as a foreign producer under this subpart.

(1) Any United States Environmental Protection Agency inspector or auditor must be given full, complete, and immediate access to conduct inspections and audits of the foreign producer facility.

(i) Inspections and audits may be either announced in advance by EPA, or unannounced.

(ii) Access will be provided to any location where:

(A) Renewable fuel is produced;

(B) Documents related to renewable fuel producer operations are kept; and

(C) RFS–FRRF is stored or transported between the foreign producer and the United States, including storage tanks, vessels and pipelines.

(iii) EPA inspectors and auditors may be EPA employees or contractors to EPA.

(iv) Any documents requested that are related to matters covered by inspections and audits must be provided to an EPA inspector or auditor on request.

(v) Inspections and audits may include review and copying of any documents related to the following:

(A) The volume of RFS–FRRF.

(B) The proper classification of renewable fuel as being RFS–FRRF.

(C) Transfers of title or custody to RFS–FRRF.

(D) Work performed and reports prepared by independent third parties and by independent auditors under the requirements of this section, including work papers.

(vi) Inspections and audits by EPA may include interviewing employees.

(vii) Any employee of the foreign producer must be made available for interview by the EPA inspector or auditor, on request, within a reasonable time period.

(viii) English language translations of any documents must be provided to an

EPA inspector or auditor, on request, within 10 working days.

(ix) English language interpreters must be provided to accompany EPA inspectors and auditors, on request.

(2) An agent for service of process located in the District of Columbia shall be named, and service on this agent constitutes service on the foreign producer or any employee of the foreign producer for any action by EPA or otherwise by the United States related to the requirements of this subpart.

(3) The forum for any civil or criminal enforcement action related to the provisions of this section for violations of the Clean Air Act or regulations promulgated thereunder shall be governed by the Clean Air Act, including the EPA administrative forum where allowed under the Clean Air Act.

(4) United States substantive and procedural laws shall apply to any civil or criminal enforcement action against the foreign producer or any employee of the foreign producer related to the provisions of this section.

(5) Applying to be an approved foreign producer under this section, or producing or exporting renewable fuel under such approval, and all other actions to comply with the requirements of this subpart relating to such approval constitute actions or activities covered by and within the meaning of the provisions of 28 U.S.C. 1605(a)(2), but solely with respect to actions instituted against the foreign producer, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign producer under this subpart, including conduct that violates the False Statements Accountability Act of 1996 (18 U.S.C. 1001) and section 113(c)(2) of the Clean Air Act (42 U.S.C. 7413).

(6) The foreign producer, or its agents or employees, will not seek to detain or to impose civil or criminal remedies against EPA inspectors or auditors for actions performed within the scope of EPA employment or contract related to the provisions of this section.

(7) The commitment required by this paragraph (f) shall be signed by the owner or president of the foreign producer company.

(8) In any case where RFS–FRRF produced at a foreign producer facility is stored or transported by another company between the production facility and the vessel that transports the RFS–FRRF to the United States, the foreign producer shall obtain from each such other company a commitment that meets the requirements specified in paragraphs (f)(1) through (7) of this section, and these commitments shall be included in the foreign producer's application to be an approved foreign producer under this subpart.

(g) *Sovereign immunity.* By submitting an application to be an approved foreign producer under this subpart, or by producing and exporting renewable fuel to the United States under such approval, the foreign producer, and its agents and employees, without exception, become subject to the full operation of the administrative and judicial enforcement powers and provisions of the United States without limitation based on sovereign immunity, with respect to actions instituted against the foreign producer, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign producer under this subpart, including conduct that violates the False Statements Accountability Act of 1996 (18 U.S.C. 1001) and section 113(c)(2) of the Clean Air Act (42 U.S.C. 7413).

(h) *Bond posting.* Any RIN-generating foreign producer shall meet the requirements of this paragraph (h) as a condition to approval as a foreign producer under this subpart.

(1) The RIN-generating foreign producer shall post a bond of the amount calculated using the following equation:

$$\text{Bond} = G * \$\,0.01$$

Where:

Bond = amount of the bond in U.S. dollars.

G = the greater of: the largest volume of renewable fuel produced by the foreign producer and exported to the United States, in gallons, during a single calendar year among the five preceding calendar years, or the largest volume of renewable fuel that the foreign producers expects to export to the Unites States during any calendar year identified in the Production Outlook Report required by § 80.1449. If the volume of renewable fuel exported to the United States increases above the largest volume identified in the Production Outlook Report during any calendar year, the foreign producer shall increase the bond to cover the shortfall within 90 days.

(2) Bonds shall be posted by any of the following methods:

(i) Paying the amount of the bond to the Treasurer of the United States.

(ii) Obtaining a bond in the proper amount from a third party surety agent that is payable to satisfy United States administrative or judicial judgments against the foreign producer, provided EPA agrees in advance as to the third party and the nature of the surety agreement.

(iii) An alternative commitment that results in assets of an appropriate liquidity and value being readily available to the United States provided EPA agrees in advance as to the alternative commitment.

(3) Bonds posted under this paragraph (h) shall:

(i) Be used to satisfy any judicial judgment that results from an administrative or judicial enforcement action for conduct in violation of this subpart, including where such conduct violates the False Statements Accountability Act of 1996 (18 U.S.C. 1001) and section 113(c)(2) of the Clean Air Act (42 U.S.C. 7413);

(ii) Be provided by a corporate surety that is listed in the United States Department of Treasury Circular 570 "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds"; and

(iii) Include a commitment that the bond will remain in effect for at least five years following the end of latest annual reporting period that the foreign producer produces renewable fuel pursuant to the requirements of this subpart.

(4) On any occasion a foreign producer bond is used to satisfy any judgment, the foreign producer shall increase the bond to cover the amount used within 90 days of the date the bond is used.

(i) *English language reports.* Any document submitted to EPA by a foreign producer shall be in English, or shall include an English language translation.

(j) *Prohibitions.*

(1) No person may combine RFS–FRRF with any Non-RFS–FRRF, and no person may combine RFS–FRRF with any RFS–FRRF produced at a different production facility, until the importer has met all the requirements of paragraph (k) of this section.

(2) No foreign producer or other person may cause another person to commit an action prohibited in paragraph (j)(1) of this section, or that otherwise violates the requirements of this section.

(3) No foreign producer and importer may generate RINs for the same volume of renewable fuel.

(4) A foreign producer of renewable fuel is prohibited from generating RINs in excess of the number for which the bond requirements of this section have been satisfied.

(k) *Requirements for United States importers of RFS–FRRF.* Any United States importers of RFS–FRRF shall meet all the following requirements:

(1) Renewable fuel shall be classified as RFS–FRRF according to the designation by the foreign producer if this designation is supported by product transfer documents prepared by the

foreign producer as required in paragraph (c) of this section.

(2) For each renewable fuel batch classified as RFS–FRRF, any United States importer shall have an independent third party do all the following:

(i) Determine the volume of renewable fuel, standardized per § 80.1426(f)(8), in the vessel.

(ii) Use the foreign producer's RFS–FRRF certification to determine the name and EPA-assigned registration number of the foreign producer that produced the RFS–FRRF.

(iii) Determine the name and country of registration of the vessel used to transport the RFS–FRRF to the United States.

(iv) Determine the date and time the vessel arrives at the United States port of entry.

(3) Where the importer is required to retire RINs under paragraph (e)(2) of this section, the importer must report the retired RINs in the applicable reports under § 80.1451.

(4) Any importer shall submit reports within 30 days following the date any vessel transporting RFS–FRRF arrives at the United States port of entry to all the following:

(i) The Administrator, containing the information determined under paragraph (k)(2) of this section.

(ii) The foreign producer, containing the information determined under paragraph (k)(2)(i) of this section, and including identification of the port at which the product was offloaded, and any RINs retired under paragraph (e)(2) of this section.

(5) Any United States importer shall meet all other requirements of this subpart for any imported renewable fuel that is not classified as RFS–FRRF under paragraph (k)(1) of this section.

(l) *Truck imports of RFS–FRRF produced by a foreign producer.*

(1) Any foreign producer whose RFS–FRRF is transported into the United States by truck may petition EPA to use alternative procedures to meet all the following requirements:

(i) Certification under paragraph (c)(2) of this section.

(ii) Load port and port of entry testing under paragraphs (d) and (e) of this section.

(iii) Importer testing under paragraph (k)(2) of this section.

(2) These alternative procedures must ensure RFS–FRRF remains segregated from Non-RFS–FRRF until it is imported into the United States. The petition will be evaluated based on whether it adequately addresses all of the following:

(i) Contracts with any facilities that receive and/or transport RFS–FRRF that prohibit the commingling of RFS–FRRF with Non-RFS–FRRF or RFS–FRRF from other foreign producers.

(ii) Attest procedures to be conducted annually by an independent third party that review loading records and import documents based on volume reconciliation to confirm that all RFS–FRRF remains segregated.

(3) The petition described in this section must be submitted to EPA along with the application for approval as a foreign producer under this subpart.

(m) *Additional attest requirements for producers of RFS–FRRF.* The following additional procedures shall be carried out by any producer of RFS–FRRF as part of the attest engagement required for renewable fuel producers under this subpart M.

(1) Obtain listings of all tenders of RFS–FRRF. Agree the total volume of tenders from the listings to the volumes determined by the third party under paragraph (d) of this section.

(2) For each tender under paragraph (m)(1) of this section, where the renewable fuel is loaded onto a marine vessel, report as a finding the name and country of registration of each vessel, and the volumes of RFS–FRRF loaded onto each vessel.

(3) Select a sample from the list of vessels identified in paragraph (m)(2) of this section used to transport RFS–FRRF, in accordance with the guidelines in § 80.127, and for each vessel selected perform all the following:

(i) Obtain the report of the independent third party, under paragraph (d) of this section, and of the United States importer under paragraph (k) of this section.

(A) Agree the information in these reports with regard to vessel identification and renewable fuel volume.

(B) Identify, and report as a finding, each occasion the load port and port of entry volume results differ by more than the amount allowed in paragraph (e) of this section, and determine whether the importer retired the appropriate amount of RINs as required under paragraph (e)(2) of this section, and submitted the applicable reports under § 80.1451 in accordance with paragraph (k)(4) of this section.

(ii) Obtain the documents used by the independent third party to determine transportation and storage of the RFS–FRRF from the foreign producer's facility to the load port, under paragraph (d) of this section. Obtain tank activity records for any storage tank where the RFS–FRRF is stored, and activity records for any mode of transportation used to transport the RFS–FRRF prior to being loaded onto the vessel. Use these records to determine whether the RFS–FRRF was produced at the foreign producer's facility that is the subject of the attest engagement, and whether the RFS–FRRF was mixed with any Non-RFS–FRRF or any RFS–FRRF produced at a different facility.

(4) Select a sample from the list of vessels identified in paragraph (m)(2) of this section used to transport RFS–FRRF, in accordance with the guidelines in § 80.127, and for each vessel selected perform the following:

(i) Obtain a commercial document of general circulation that lists vessel arrivals and departures, and that includes the port and date of departure of the vessel, and the port of entry and date of arrival of the vessel.

(ii) Agree the vessel's departure and arrival locations and dates from the independent third party and United States importer reports to the information contained in the commercial document.

(5) Obtain a separate listing of the tenders under this paragraph (m)(5) where the RFS–FRRF is loaded onto a marine vessel. Select a sample from this listing in accordance with the guidelines in § 80.127, and obtain a commercial document of general circulation that lists vessel arrivals and departures, and that includes the port and date of departure and the ports and dates where the renewable fuel was offloaded for the selected vessels. Determine and report as a finding the country where the renewable fuel was offloaded for each vessel selected.

(6) In order to complete the requirements of this paragraph (m) an auditor shall:

(i) Be independent of the foreign producer;

(ii) Be licensed as a Certified Public Accountant in the United States and a citizen of the United States, or be approved in advance by EPA based on a demonstration of ability to perform the procedures required in §§ 80.125 through 80.127, 80.130, 80.1464, and this paragraph (m); and

(iii) Sign a commitment that contains the provisions specified in paragraph (f) of this section with regard to activities and documents relevant to compliance with the requirements of §§ 80.125 through 80.127, 80.130, 80.1464, and this paragraph (m).

(n) *Withdrawal or suspension of foreign producer approval.* EPA may withdraw or suspend a foreign producer's approval where any of the following occur:

(1) A foreign producer fails to meet any requirement of this section.

(2) A foreign government fails to allow EPA inspections or audits as provided in paragraph (f)(1) of this section.

(3) A foreign producer asserts a claim of, or a right to claim, sovereign immunity in an action to enforce the requirements in this subpart.

(4) A foreign producer fails to pay a civil or criminal penalty that is not satisfied using the foreign producer bond specified in paragraph (h) of this section.

(o) *Additional requirements for applications, reports and certificates.* Any application for approval as a foreign producer, alternative procedures under paragraph (l) of this section, any report, certification, or other submission required under this section shall be:

(1) Submitted in accordance with procedures specified by the Administrator, including use of any forms that may be specified by the Administrator.

(2) Signed by the president or owner of the foreign producer company, or by that person's immediate designee, and shall contain the following declaration: "I hereby certify: (1) That I have actual authority to sign on behalf of and to bind [INSERT NAME OF FOREIGN PRODUCER] with regard to all statements contained herein; (2) that I am aware that the information contained herein is being Certified, or submitted to the United States Environmental Protection Agency, under the requirements of 40 CFR part 80, subpart M, and that the information is material for determining compliance under these regulations; and (3) that I have read and understand the information being Certified or submitted, and this information is true, complete and correct to the best of my knowledge and belief after I have taken reasonable and appropriate steps to verify the accuracy thereof. I affirm that I have read and understand the provisions of 40 CFR part 80, subpart M, including 40 CFR 80.1465 apply to [INSERT NAME OF FOREIGN PRODUCER]. Pursuant to Clean Air Act section 113(c) and 18 U.S.C. 1001, the penalty for furnishing false, incomplete or misleading information in this certification or submission is a fine of up to $10,000 U.S., and/or imprisonment for up to five years.".

§ 80.1467 What are the additional requirements under this subpart for a foreign RIN owner?

(a) *Foreign RIN owner.* For purposes of this subpart, a foreign RIN owner is a person located outside the United States, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands (collectively referred to in this section as "the United States") that has been approved by EPA to own RINs.

(b) *General Requirement.* An approved foreign RIN owner must meet all requirements that apply to parties who own RINs under this subpart.

(c) *Foreign RIN owner commitments.* Any person shall commit to and comply with the provisions contained in this paragraph (c) as a condition to being approved as a foreign RIN owner under this subpart.

(1) Any United States Environmental Protection Agency inspector or auditor must be given full, complete, and immediate access to conduct inspections and audits of the foreign RIN owner's place of business.

(i) Inspections and audits may be either announced in advance by EPA, or unannounced.

(ii) Access will be provided to any location where documents related to RINs the foreign RIN owner has obtained, sold, transferred or held are kept.

(iii) Inspections and audits may be by EPA employees or contractors to EPA.

(iv) Any documents requested that are related to matters covered by inspections and audits must be provided to an EPA inspector or auditor on request.

(v) Inspections and audits by EPA may include review and copying of any documents related to the following:

(A) Transfers of title to RINs.

(B) Work performed and reports prepared by independent auditors under the requirements of this section, including work papers.

(vi) Inspections and audits by EPA may include interviewing employees.

(vii) Any employee of the foreign RIN owner must be made available for interview by the EPA inspector or auditor, on request, within a reasonable time period.

(viii) English language translations of any documents must be provided to an EPA inspector or auditor, on request, within 10 working days.

(ix) English language interpreters must be provided to accompany EPA inspectors and auditors, on request.

(2) An agent for service of process located in the District of Columbia shall be named, and service on this agent constitutes service on the foreign RIN owner or any employee of the foreign RIN owner for any action by EPA or otherwise by the United States related to the requirements of this subpart.

(3) The forum for any civil or criminal enforcement action related to the provisions of this section for violations of the Clean Air Act or regulations promulgated thereunder shall be governed by the Clean Air Act, including the EPA administrative forum where allowed under the Clean Air Act.

(4) United States substantive and procedural laws shall apply to any civil or criminal enforcement action against the foreign RIN owner or any employee of the foreign RIN owner related to the provisions of this section.

(5) Submitting an application to be a foreign RIN owner, and all other actions to comply with the requirements of this subpart constitute actions or activities covered by and within the meaning of the provisions of 28 U.S.C. 1605(a)(2), but solely with respect to actions instituted against the foreign RIN owner, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign RIN owner under this subpart, including conduct that violates the False Statements Accountability Act of 1996 (18 U.S.C. 1001) and section 113(c)(2) of the Clean Air Act (42 U.S.C. 7413).

(6) The foreign RIN owner, or its agents or employees, will not seek to detain or to impose civil or criminal remedies against EPA inspectors or auditors, whether EPA employees or EPA contractors, for actions performed within the scope of EPA employment related to the provisions of this section.

(7) The commitment required by this paragraph (c) shall be signed by the owner or president of the foreign RIN owner business.

(d) *Sovereign immunity.* By submitting an application to be a foreign RIN owner under this subpart, the foreign entity, and its agents and employees, without exception, become subject to the full operation of the administrative and judicial enforcement powers and provisions of the United States without limitation based on sovereign immunity, with respect to actions instituted against the foreign RIN owner, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign RIN owner under this subpart, including conduct that violates the False Statements Accountability Act of 1996 (18 U.S.C. 1001) and section 113(c)(2) of the Clean Air Act (42 U.S.C. 7413).

(e) *Bond posting.* Any foreign entity shall meet the requirements of this paragraph (e) as a condition to approval as a foreign RIN owner under this subpart.

(1) The foreign entity shall post a bond of the amount calculated using the following equation:

$$\text{Bond} = G * \$\,0.01$$

Where:

Bond = amount of the bond in U.S. dollars.

G = the total of the number of gallon-RINs the foreign entity expects to sell or transfer during the first calendar year that the foreign entity is a RIN owner, plus the number of gallon-RINs the foreign entity expects to sell or transfer during the next four calendar years. After the first calendar year, the bond amount shall be based on the actual number of gallon-RINs sold or transferred during the current calendar year and the number held at the conclusion of the current averaging year, plus the number of gallon-RINs sold or transferred during the four most recent calendar years preceding the current calendar year. For any year for which there were fewer than four preceding years in which the foreign entity sold or transferred RINs, the bond shall be based on the total of the number of gallon-RINs sold or transferred during the current calendar year and the number held at the end of the current calendar year, plus the number of gallon-RINs sold or transferred during any calendar year preceding the current calendar year, plus the number of gallon-RINs expected to be sold or transferred during subsequent calendar years, the total number of years not to exceed four calendar years in addition to the current calendar year.

(2) Bonds shall be posted by doing any of the following:

(i) Paying the amount of the bond to the Treasurer of the United States.

(ii) Obtaining a bond in the proper amount from a third party surety agent that is payable to satisfy United States administrative or judicial judgments against the foreign RIN owner, provided EPA agrees in advance as to the third party and the nature of the surety agreement.

(iii) An alternative commitment that results in assets of an appropriate liquidity and value being readily available to the United States, provided EPA agrees in advance as to the alternative commitment.

(3) All the following shall apply to bonds posted under this paragraph (e); bonds shall:

(i) Be used to satisfy any judicial judgment that results from an administrative or judicial enforcement action for conduct in violation of this subpart, including where such conduct violates the False Statements Accountability Act of 1996 (18 U.S.C. 1001) and section 113(c)(2) of the Clean Air Act (42 U.S.C. 7413).

(ii) Be provided by a corporate surety that is listed in the United States Department of Treasury Circular 570 "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds".

(iii) Include a commitment that the bond will remain in effect for at least five years following the end of latest reporting period in which the foreign RIN owner obtains, sells, transfers, or holds RINs.

(4) On any occasion a foreign RIN owner bond is used to satisfy any judgment, the foreign RIN owner shall increase the bond to cover the amount used within 90 days of the date the bond is used.

(f) *English language reports.* Any document submitted to EPA by a foreign RIN owner shall be in English, or shall include an English language translation.

(g) *Prohibitions.*

(1) A foreign RIN owner is prohibited from obtaining, selling, transferring, or holding any RIN that is in excess of the number for which the bond requirements of this section have been satisfied.

(2) Any RIN that is sold, transferred, or held that is in excess of the number for which the bond requirements of this section have been satisfied is an invalid RIN under § 80.1431.

(3) Any RIN that is obtained from a person located outside the United States that is not an approved foreign RIN owner under this section is an invalid RIN under § 80.1431.

(4) No foreign RIN owner or other person may cause another person to commit an action prohibited in this paragraph (g), or that otherwise violates the requirements of this section.

(h) *Additional attest requirements for foreign RIN owners.* The following additional requirements apply to any foreign RIN owner as part of the attest engagement required for RIN owners under this subpart M.

(1) The attest auditor must be independent of the foreign RIN owner.

(2) The attest auditor must be licensed as a Certified Public Accountant in the United States and a citizen of the United States, or be approved in advance by EPA based on a demonstration of ability to perform the procedures required in §§ 80.125 through 80.127, 80.130, and 80.1464.

(3) The attest auditor must sign a commitment that contains the provisions specified in paragraph (c) of this section with regard to activities and documents relevant to compliance with the requirements of §§ 80.125 through 80.127, 80.130, and 80.1464.

(i) *Withdrawal or suspension of foreign RIN owner status.* EPA may withdraw or suspend its approval of a foreign RIN owner where any of the following occur:

(1) A foreign RIN owner fails to meet any requirement of this section, including, but not limited to, the bond requirements.

(2) A foreign government fails to allow EPA inspections as provided in paragraph (c)(1) of this section.

(3) A foreign RIN owner asserts a claim of, or a right to claim, sovereign immunity in an action to enforce the requirements in this subpart.

(4) A foreign RIN owner fails to pay a civil or criminal penalty that is not satisfied using the foreign RIN owner bond specified in paragraph (e) of this section.

(j) *Additional requirements for applications, reports and certificates.* Any application for approval as a foreign RIN owner, any report, certification, or other submission required under this section shall be:

(1) Submitted in accordance with procedures specified by the Administrator, including use of any forms that may be specified by the Administrator.

(2) Signed by the president or owner of the foreign RIN owner company, or by that person's immediate designee, and shall contain the following declaration:

"I hereby certify: (1) That I have actual authority to sign on behalf of and to bind [INSERT NAME OF FOREIGN RIN OWNER] with regard to all statements contained herein; (2) that I am aware that the information contained herein is being Certified, or submitted to the United States Environmental Protection Agency, under the requirements of 40 CFR part 80, subpart M, and that the information is material for determining compliance under these regulations; and (3) that I have read and understand the information being Certified or submitted, and this information is true, complete and correct to the best of my knowledge and belief after I have taken reasonable and appropriate steps to verify the accuracy thereof. I affirm that I have read and understand the provisions of 40 CFR part 80, subpart M, including 40 CFR 80.1467 apply to [INSERT NAME OF FOREIGN RIN OWNER]. Pursuant to Clean Air Act section 113(c) and 18 U.S.C. 1001, the penalty for furnishing false, incomplete or misleading information in this certification or submission is a fine of up to $10,000 U.S., and/or imprisonment for up to five years.".

§ 80.1468 Incorporation by reference.

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the Environmental Protection Agency (EPA) must publish notice of change in the **Federal Register** and the material

must be available to the public. All approved material is available for inspection 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*. This material is also available for inspection at the EPA Docket Center, Docket No. EPA–HQ–OAR–2005–0161, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington DC. The telephone number for the Air Docket is (202) 566–1742. Also, this material is available from the source listed in paragraph (b) of this section.

(b) American Society for Testing and Materials, 100 Barr Harbor Drive, P.O. Box C–700, West Conshohocken, Pennsylvania 19428 (1–800–262–1373, *www.astm.org*).

(1) ASTM D 1250–08 ("ASTM D 1250"), Standard Guide for Use of the Petroleum Measurement Tables, Approved 2008; IBR approved for § 80.1426(f)(8)(ii)(B).

(2) ASTM D 4442–07 ("ASTM D 4442"), Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Base Materials, Approved 2007; IBR approved for § 80.1426(f)(7)(v)(B).

(3) ASTM D 4444–08 ("ASTM D 4444"), Standard Test Method for Laboratory Standardization and Calibration of Hand-Held Moisture Meters, Approved 2008; IBR approved for § 80.1426(f)(7)(v)(B).

(4) ASTM D 6751–09 ("ASTM D 6751"), Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, Approved 2009; IBR approved for § 80.1401.

(5) ASTM D 6866–08 ("ASTM D 6866"), Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis, Approved 2008; IBR approved for §§ 80.1426(f)(9)(ii) and 80.1430(e)(2).

(6) ASTM E 711–87 ("ASTM E 711"), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter, Reapproved 2004; IBR approved for § 80.1426(f)(7)(v)(A).

(7) ASTM E 870–82 ("ASTM E 870"), Standard Test Methods for Analysis of Wood Fuels, Reapproved 2006); IBR approved for § 80.1426(f)(7)(v)(A).

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Federal Register

Friday,
March 26, 2010

Part III

Department of Health and Human Services

Centers for Medicare & Medicaid Services

Medicare and Medicaid Programs; Quarterly Listing of Program Issuances—October Through December 2009; Notice

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

[CMS–9057–N]

Medicare and Medicaid Programs; Quarterly Listing of Program Issuances—October Through December 2009

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

ACTION: Notice.

SUMMARY: This notice lists CMS manual instructions, substantive and interpretive regulations, and other **Federal Register** notices that were published from October 2009 through December 2009, relating to the Medicare and Medicaid programs. This notice provides information on national coverage determinations (NCDs) affecting specific medical and health care services under Medicare. Additionally, this notice identifies certain devices with investigational device exemption (IDE) numbers approved by the Food and Drug Administration (FDA) that potentially may be covered under Medicare. This notice also includes listings of all approval numbers from the Office of Management and Budget for collections of information in CMS regulations and a list of Medicare-approved carotid stent facilities. Included in this notice is a list of the American College of Cardiology's National Cardiovascular Data registry sites, active CMS coverage-related guidance documents, and special one-time notices regarding national coverage provisions. Also included in this notice is a list of National Oncologic Positron Emissions Tomography Registry sites, a list of Medicare-approved ventricular assist device (destination therapy) facilities, a list of Medicare-approved lung volume reduction surgery facilities, a list of Medicare-approved clinical trials for fluorodeoxyglucose positron emissions tomogrogphy for dementia, and a list of Medicare-approved bariatric surgery facilities.

Section 1871(c) of the Social Security Act requires that we publish a list of Medicare issuances in the **Federal Register** at least every 3 months. Although we are not mandated to do so by statute, for the sake of completeness of the listing, and to foster more open and transparent collaboration efforts, we are also including all Medicaid issuances and Medicare and Medicaid substantive and interpretive regulations (proposed and final) published during this 3-month time frame.

FOR FURTHER INFORMATION CONTACT: It is possible that an interested party may need specific information and not be able to determine from the listed information whether the issuance or regulation would fulfill that need. Consequently, we are providing contact persons to answer general questions concerning these items. Copies are not available through the contact persons. (*See* Section III of this notice for how to obtain listed material.)

Questions concerning CMS manual instructions in Addendum III may be addressed to Ismael Torres, Office of Strategic Operations and Regulatory Affairs, Centers for Medicare & Medicaid Services, C4–26–05, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–1864.

Questions concerning regulation documents published in the **Federal Register** in Addendum IV may be addressed to Gwendolyn Johnson, Office of Strategic Operations and Regulatory Affairs, Centers for Medicare & Medicaid Services, C4–14–03, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–6954.

Questions concerning Medicare NCDs in Addendum V may be addressed to Patricia Brocato-Simons, Office of Clinical Standards and Quality, Centers for Medicare & Medicaid Services, C1–09–06, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–0261.

Questions concerning FDA-approved Category B IDE numbers listed in Addendum VI may be addressed to John Manlove, Office of Clinical Standards and Quality, Centers for Medicare & Medicaid Services, C1–13–04, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–6877.

Questions concerning approval numbers for collections of information in Addendum VII may be addressed to Melissa Musotto, Office of Strategic Operations and Regulatory Affairs, Regulations Development and Issuances Group, Centers for Medicare & Medicaid Services, C5–14–03, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–6962.

Questions concerning Medicare-approved carotid stent facilities in Addendum VIII may be addressed to Sarah J. McClain, Office of Clinical Standards and Quality, Centers for Medicare & Medicaid Services, C1–09–06, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–2994.

Questions concerning Medicare's recognition of the American College of Cardiology-National Cardiovascular Data Registry sites in Addendum IX may be addressed to JoAnna Baldwin, MS, Office of Clinical Standards and Quality, Centers for Medicare & Medicaid Services, C1–09–06, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–7205.

Questions concerning Medicare's active coverage-related guidance documents in Addendum X may be addressed to Beverly Lofton, Office of Clinical Standards and Quality, Centers for Medicare & Medicaid Services, C1–09–06, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–7136.

Questions concerning one-time notices regarding national coverage provisions in Addendum XI may be addressed to Beverly Lofton, Office of Clinical Standards and Quality, Centers for Medicare & Medicaid Services, C1–09–06, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–7136.

Questions concerning National Oncologic Positron Emission Tomography Registry sites in Addendum XII may be addressed to Stuart Caplan, RN, MAS, Office of Clinical Standards and Quality, Centers for Medicare & Medicaid Services, C1–09–06, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–8564.

Questions concerning Medicare-approved ventricular assist device (destination therapy) facilities in Addendum XIII may be addressed to JoAnna Baldwin, MS, Office of Clinical Standards and Quality, Centers for Medicare & Medicaid Services, C1–09–06, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–7205.

Questions concerning Medicare-approved lung volume reduction surgery facilities listed in Addendum XIV may be addressed to JoAnna Baldwin, MS, Office of Clinical Standards and Quality, Centers for Medicare & Medicaid Services, C1–09–06, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–7205.

Questions concerning Medicare-approved bariatric surgery facilities listed in Addendum XV may be addressed to Kate Tillman, RN, MA, Office of Clinical Standards and Quality, Centers for Medicare & Medicaid Services, C1–09–06, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–9252.

Questions concerning fluorodeoxyglucose positron emission

tomography for dementia trials listed in Addendum XVI may be addressed to Stuart Caplan, RN, MAS, Office of Clinical Standards and Quality, Centers for Medicare & Medicaid Services, C1–09–06, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–8564.

Questions concerning all other information may be addressed to Gwendolyn Johnson, Office of Strategic Operations and Regulatory Affairs, Regulations Development Group, Centers for Medicare & Medicaid Services, C5–14–03, 7500 Security Boulevard, Baltimore, MD 21244–1850, or you can call (410) 786–6954.

SUPPLEMENTARY INFORMATION:

I. Program Issuances

The Centers for Medicare & Medicaid Services (CMS) is responsible for administering the Medicare and Medicaid programs. These programs pay for health care and related services for 39 million Medicare beneficiaries and 35 million Medicaid recipients. Administration of the two programs involves (1) furnishing information to Medicare beneficiaries and Medicaid recipients, health care providers, and the public and (2) maintaining effective communications with regional offices, State governments, State Medicaid agencies, State survey agencies, various providers of health care, all Medicare contractors that process claims and pay bills, and others. To implement the various statutes on which the programs are based, we issue regulations under the authority granted to the Secretary of the Department of Health and Human Services under sections 1102, 1871, 1902, and related provisions of the Social Security Act (the Act). We also issue various manuals, memoranda, and statements necessary to administer the programs efficiently.

Section 1871(c)(1) of the Act requires that we publish a list of all Medicare manual instructions, interpretive rules, statements of policy, and guidelines of general applicability not issued as regulations at least every 3 months in the **Federal Register.** We published our first notice June 9, 1988 (53 FR 21730). Although we are not mandated to do so by statute, for the sake of completeness of the listing of operational and policy statements, and to foster more open and transparent collaboration, we are continuing our practice of including Medicare substantive and interpretive regulations (proposed and final) published during the respective 3-month time frame.

II. How To Use the Addenda

This notice is organized so that a reader may review the subjects of manual issuances, memoranda, substantive and interpretive regulations, NCDs, and FDA-approved IDEs published during the subject quarter to determine whether any are of particular interest. We expect this notice to be used in concert with previously published notices. Those unfamiliar with a description of our Medicare manuals may wish to review Table I of our first three notices (53 FR 21730, 53 FR 36891, and 53 FR 50577) published in 1988, and the notice published March 31, 1993 (58 FR 16837). Those desiring information on the Medicare NCD Manual (NCDM, formerly the Medicare Coverage Issues Manual (CIM)) may wish to review the August 21, 1989, publication (54 FR 34555). Those interested in the revised process used in making NCDs under the Medicare program may review the September 26, 2003, publication (68 FR 55634).

To aid the reader, we have organized and divided this current listing into 11 addenda:

- Addendum I lists the publication dates of the most recent quarterly listings of program issuances.
- Addendum II identifies previous **Federal Register** documents that contain a description of all previously published CMS Medicare and Medicaid manuals and memoranda.
- Addendum III lists a unique CMS transmittal number for each instruction in our manuals or Program Memoranda and its subject matter. A transmittal may consist of a single or multiple instruction(s). Often, it is necessary to use information in a transmittal in conjunction with information currently in the manuals.
- Addendum IV lists all substantive and interpretive Medicare and Medicaid regulations and general notices published in the **Federal Register** during the quarter covered by this notice. For each item, we list the—
  - Date published;
  - **Federal Register** citation;
  - Parts of the Code of Federal Regulations (CFR) that have changed (if applicable);
  - Agency file code number; and
  - Title of the regulation.
- Addendum V includes completed NCDs, or reconsiderations of completed NCDs, from the quarter covered by this notice. Completed decisions are identified by the section of the NCDM in which the decision appears, the title, the date the publication was issued, and the effective date of the decision.
- Addendum VI includes listings of the FDA-approved IDE categorizations, using the IDE numbers the FDA assigns. The listings are organized according to the categories to which the device numbers are assigned (that is, Category A or Category B), and identified by the IDE number.
- Addendum VII includes listings of all approval numbers from the Office of Management and Budget (OMB) for collections of information in CMS regulations in title 42; title 45, subchapter C; and title 20 of the CFR.
- Addendum VIII includes listings of Medicare-approved carotid stent facilities. All facilities listed meet CMS standards for performing carotid artery stenting for high risk patients.
- Addendum IX includes a list of the American College of Cardiology's National Cardiovascular Data registry sites. We cover implantable cardioverter defibrillators (ICDs) for certain indications, as long as information about the procedures is reported to a central registry.
- Addendum X includes a list of active CMS guidance documents. As required by section 731 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) (Pub. L. 108–173, enacted on December 8, 2003), we will begin listing the current versions of our guidance documents in each quarterly listings notice.
- Addendum XI includes a list of special one-time notices regarding national coverage provisions. We are publishing a list of issues that require public notification, such as a particular clinical trial or research study that qualifies for Medicare coverage.
- Addendum XII includes a listing of National Oncologic Positron Emission Tomography Registry (NOPR) sites. We cover positron emission tomography (PET) scans for particular oncologic indications when they are performed in a facility that participates in the NOPR.
- Addendum XIII includes a listing of Medicare-approved facilities that receive coverage for ventricular assist devices used as destination therapy. All facilities were required to meet our standards in order to receive coverage for ventricular assist devices implanted as destination therapy.
- Addendum XIV includes a listing of Medicare-approved facilities that are eligible to receive coverage for lung volume reduction surgery. Until May 17, 2007, facilities that participated in the National Emphysema Treatment Trial are also eligible to receive coverage.
- Addendum XV includes a listing of Medicare-approved facilities that meet minimum standards for facilities modeled in part on professional society statements on competency. All facilities

must meet our standards in order to receive coverage for bariatric surgery procedures.

• Addendum XVI includes a listing of Medicare-approved clinical trials for fluorodeoxyglucose positron emission tomography (FDG–PET) for dementia and neurodegenerative diseases.

III. How To Obtain Listed Material

A. Manuals

Those wishing to subscribe to program manuals should contact either the Government Printing Office (GPO) or the National Technical Information Service (NTIS) at the following addresses:

Superintendent of Documents, Government Printing Office, ATTN: New Orders, P.O. Box 371954, Pittsburgh, PA 15250–7954, Telephone (202) 512–1800, Fax number (202) 512–2250 (for credit card orders); or

National Technical Information Service, Department of Commerce, 5825 Port Royal Road, Springfield, VA 22161, Telephone (703) 487–4630.

In addition, individual manual transmittals and Program Memoranda listed in this notice can be purchased from NTIS. Interested parties should identify the transmittal(s) they want. GPO or NTIS can give complete details on how to obtain the publications they sell. Additionally, most manuals are available at the following Internet address: *http://cms.hhs.gov/manuals/default.asp.*

B. Regulations and Notices

Regulations and notices are published in the daily **Federal Register.** Interested individuals may purchase individual copies or subscribe to the **Federal Register** by contacting the GPO at the address given above. When ordering individual copies, it is necessary to cite either the date of publication or the volume number and page number.

The **Federal Register** is also available on 24x microfiche and as an online database through *GPO Access.* The online database is updated by 6 a.m. each day the **Federal Register** is published. The database includes both text and graphics from Volume 59, Number 1 (January 2, 1994) forward. Free public access is available on a Wide Area Information Server (WAIS) through the Internet and via asynchronous dial-in. Internet users can access the database by using the World Wide Web; the Superintendent of Documents home page address is *http://www.gpoaccess.gov/fr/index.html,* by using local WAIS client software, or by telnet to *swais.gpoaccess.gov,* then log in as guest (no password required). Dial-in users should use communications software and modem to call (202) 512–1661; type swais, then log in as guest (no password required).

C. Rulings

We publish rulings on an infrequent basis. CMS Rulings are decisions of the Administrator that serve as precedent final opinions and orders and statements of policy and interpretation. They provide clarification and interpretation of complex or ambiguous provisions of the law or regulations relating to Medicare, Medicaid, Utilization and Quality Control Peer Review, private health insurance, and related matters. Interested individuals can obtain copies from the nearest CMS Regional Office or review them at the nearest regional depository library. We have, on occasion, published rulings in the **Federal Register.** Rulings, beginning with those released in 1995, are available online, through the CMS Home Page. The Internet address is *http://cms.hhs.gov/rulings.*

D. CMS' Compact Disk–Read Only Memory (CD–ROM)

Our laws, regulations, and manuals are also available on CD–ROM and may be purchased from GPO or NTIS on a subscription or single copy basis. The Superintendent of Documents list ID is HCLRM, and the stock number is 717–139–00000–3. The following material is on the CD–ROM disk:

• Titles XI, XVIII, and XIX of the Act.
• CMS-related regulations.
• CMS manuals and monthly revisions.
• CMS program memoranda.

The titles of the Compilation of the Social Security Laws are current as of January 1, 2005. (Updated titles of the Social Security Laws are available on the Internet at *http://www.ssa.gov/OP_Home/ssact/comp-toc.htm.*) The remaining portions of CD–ROM are updated on a monthly basis.

Because of complaints about the unreadability of the Appendices (Interpretive Guidelines) in the State Operations Manual (SOM), as of March 1995, we deleted these appendices from CD–ROM. We intend to re-visit this issue in the near future and, with the aid of newer technology, we may again be able to include the appendices on CD–ROM.

Any cost report forms incorporated in the manuals are included on the CD–ROM disk as LOTUS files. LOTUS software is needed to view the reports once the files have been copied to a personal computer disk.

IV. How To Review Listed Material

Transmittals or Program Memoranda can be reviewed at a local Federal Depository Library (FDL). Under the FDL program, government publications are sent to approximately 1,400 designated libraries throughout the United States. Some FDLs may have arrangements to transfer material to a local library not designated as an FDL. Contact any library to locate the nearest FDL.

In addition, individuals may contact regional depository libraries that receive and retain at least one copy of most Federal Government publications, either in printed or microfilm form, for use by the general public. These libraries provide reference services and interlibrary loans; however, they are not sales outlets. Individuals may obtain information about the location of the nearest regional depository library from any library.

For each CMS publication listed in Addendum III, CMS publication and transmittal numbers are shown. To help FDLs locate the materials, use the CMS publication and transmittal numbers. For example, to find the Medicare Benefit Policy publication titled "Magnetic Resonance Imaging (MRI)," use CMS–Pub. 100–03, Transmittal No. 107.

(Catalog of Federal Domestic Assistance Program No. 93.773, Medicare—Hospital Insurance, Program No. 93.774, Medicare—Supplementary Medical Insurance Program, and Program No. 93.714, Medical Assistance Program.)

Dated: March 4, 2010.

Jacquelyn Y. White,

Director, Office of Strategic Operations and Regulatory Affairs.

BILLING CODE 4120–01–P

Addendum I

This addendum lists the publication dates of the most recent quarterly listings of program issuances.

December 28, 2007 (72 FR 73990)

April 1, 2008 (73 FR 17422)

June 27, 2008 (73 FR 36596)

September 26, 2008 (73 FR 55902)

December 30, 2008 (73 FR 79982)

March 27, 2009 (74 FR 13516)

June 26, 2009 (74 FR 30689)

September 25, 2009 (74 FR 49076)

December 18, 2009 (74 FR 67310)

Addendum II—Description of Manuals, Memoranda, and CMS Rulings

An extensive descriptive listing of Medicare manuals and memoranda was published on June 9, 1988, at 53 FR 21730 and supplemented on September 22, 1988, at 53 FR 36891 and December 16, 1988, at 53 FR 50577. Also, a complete description of the former CIM (now the NCDM) was published on August 21, 1989, at 54 FR 34555. A brief description of the various Medicaid manuals and memoranda that we maintain was published on October 16, 1992, at 57 FR 47468.

ADDENDUM III
Medicare and Medicaid Manual Instructions
October Through December 2009

Transmittal No.	Manual/Subject/Publication Number

Medicare General Information
(CMS-Pub. 100-01)

59	The CMS Standard File for Reason Codes for the Fiscal Intermediary Shared System (FISS) CMS Standard File for Reason Codes
60	Issued to a specific audience, not posted to internet/Intranet due to Sensitivity of Instruction
61	Update to Medicare Deductible, Coinsurance and Premium Rates for 2010 Basis for Determining the Part A Coinsurance Amounts Part B Annual Deductible Part B Premium

Medicare Benefit Policy
(CMS-Pub. 100-02)

114	Issued to a specific audience, not posted to Internet/Intranet due to Sensitivity of Instruction
115	Ambulance Services The Destination
116	January 2010 Update of the Hospital Outpatient Prospective Payment System (OPPS) Coverage of Outpatient Diagnostic Services Furnished on or Before Dec. 31, 2009 Coverage of Outpatient Diagnostic Services Furnished on or After January 1, 2010 Coverage of Outpatient Therapeutic Services Incident to a Physician's Service Furnished on or After August 1, 2000 and Before January 1, 2010 Coverage of Outpatient Therapeutic Services Incident to a Physician's Service Furnished on or After January 1, 2010 Requirements for Diagnostic X-Ray, Diagnostic Laboratory, and Other Diagnostic Tests
117	Coverage of Kidney Disease Patient Education Services

Kidney Disease Patient Education Services
Beneficiaries Eligible for Coverage
Qualified Person
Limitations for Coverage
Standards for Content
Outcomes Assessment
118 Expansion of Medicare Telehealth Services for CY 2010
List of Medicare Telehealth Services
Follow-Up Inpatient Telehealth Consultations Defined`

Medicare National Coverage Determination
(CMS-Pub. 100-03)

107 Magnetic Resonance Imaging (MRI)
Magnetic Resonance Imaging
108 FDG PET for Solid Tumors and Myeloma
Positron Emission Tomography (PET) Scans
PET for Perfusion of the Heart (Various Effective Dates Below)
FDG PET for Refractory Seizures (Effective July 1, 2001)
FDG PET for Dementia and Neurodegenerative Diseases
(Effective September 15, 2004)
Positron Emission Tomography (FDG) for Oncologic Conditions
109 Positron Emission Tomography (PET)(FDG) for Cervical Cancer
Positron Emission Tomography (PET) (FDG) for Oncologic Conditions
(Various Effective Dates)
110 Positron Emission Tomography (PET)(FDG) for Cervical Cancer
Positron Emission Tomography (PET) (FDG) for Oncologic Conditions
(Various Effective Dates)
Positron Emission Tomography (FDG) for Oncologic Conditions

Medicare Claims Processing
(CMS-Pub. 100-04)

1822 Medicare Physician Fee Schedule Database 2010 File Layout
Addendum
1823 Place of Service and Date of Service Instructions for the Interpretation
(Professional Component) and Technical Component of Diagnostic Tests
Carrier Instructions for Place of Service Codes
Place of Service Instructions for the Interpretation of Diagnostic Tests
Place of Service Instructions for the Technical Component (TC) and

Professional Component (PC or Interpretation) of Diagnostic Tests Not Personally Performed or Supervised By A Physician
Date of Service Instructions for the Interpretation and Technical Component of Diagnostic Tests

1824 Influenza Vaccine Payment Allowances - Annual Update for 2009-2010 Season

1825 Medicare Physician Fee Schedule Database (MPFSDB) 2010 File Layout Addendum

1826 Instructions for Retrieving the 2010 Pricing and HCPCS Data Files through CMS" Mainframe Telecommunications Systems

1827 Annual Update of HCPCS Codes Used for Home Health Consolidated Billing Enforcement

1828 Verification of Status for all Hospitals Qualifying for Disproportionate Share Hospital (DSH) Payments under 42 CFR Section 412.106(c)(2), also known as the "Pickle Amendment"
Low-Income Patients

1829 Annual Clotting Factor Furnishing Fee Update
Clotting Factor Furnishing Fee

1830 Annual Type of Service (TOS) Update
Annual Type of Service (TOS) Update

1831 Magnetic Resonance Imaging (MRI)
Magnetic Resonance Imaging (MRI) Procedures

1832 Issued to a specific audience, not posted to Internet/Intranet due to Confidentiality of Instruction

1833 FDG PET for Solid Tumors and Myeloma
Positron Emission Tomography (PET) Scans - General Information
Billing Requirements for CMS - Approved Clinical Trial Claims for PET Scans for Neurodegenerative Diseases, Previously Specified Cancer Indications, and All Other Cancer Indications Not Previously Specified
Billing and Coverage Changes for PET Scans Effective for Services on or After April 3, 2009

1834 Reasonable Charge Update for 2010 for Splints, Casts, Dialysis Supplies, Dialysis Equipment, and Certain Intraocular Lenses

1835 Instructions for Downloading the Medicare ZIP Code Files for January 2010

1836 New Physician Specialty Code for Geriatric Psychiatry
Physician Specialty Codes

1837 2010 Healthcare Common Procedure Coding System (HCPCS) Annual Update Reminder

1838 Processing of Non-Covered International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Procedure codes on Inpatient Hospital Claims

Billing for Non-covered Procedures in an Inpatient Stay
Medicare Code Editor (MCE)
1839 Instructions regarding processing claims rejecting for gender/procedure Conflict
Form Locators 16-30
Special Instructions for Services with a Gender/Procedure Conflict
Billing Instructions for Institutional Providers
Billing Instructions for Physicians and Non-Physician Practitioners
1840 Billing for Services Related to Voluntary Uses of Advanced Beneficiary Notices of Noncoverage (ABNs)
Provider Billing of Non-covered Charges on Institutional Claims
General Information on Non-covered Charges on Institutional Claims
Basic Payment Liability Conditions
Billing Services Excluded by Statute
Claims With Condition Code 21
Provider-liable Fully Non-covered Outpatient Claims
Non-covered Charges on Inpatient Bills
Background on Institutional Demand Bills (Condition Code 20)
Inpatient and Outpatient Demand Billing Instructions
Outpatient Billing With an ABN (Occurrence Code 32)
Line-Item Modifiers Related to Reporting of Non-covered Charges When Covered and Non-covered Services Are on the Same Outpatient Claim
Special Instructions for Non-covered Time Increments in Standard Method
Critical Access Hospitals (CAHs)
Special Claims Processing Rules for Institutional Outpatient Rehabilitation Claims
Determining Payment Amounts
Applicable Types of Bill
Applicable Revenue Codes
Edit Requirements for Revenue Codes
Line Item Date of Service Reportin
Non-covered Charges on Institutional Ambulance Claims
1841 National Council for Prescription Drug Programs (NCPDP) Version D.0 Coordination
Benefits (COB) Requirements for the National Claims Crossover Process
National Council for Prescription Drug Programs (NCPDP) Version D.0 Coordination of Benefits (COB) Requirements
1842 Instructions for Processing Claims Containing Anti-Markup Services but with Partial Information Completed in Item 20 of the Form CMS-1500
Conditional Data Element Requirements for A/B MACs and DMEMACs

1843 Issued to a specific audience, not posted to the Internet/Intranet due to Sensitivity of Instruction

1844 Additional Health Insurance Portability and Accountability Act (HIPAA) 837 5010 Transitional Changes and Further Modifications to the Coordination of Benefits Agreement (COBA) National Crossover Process
Coordination of Benefits Agreement (COBA) Detailed Error Report Notification Process
Coordination of Benefits Agreement (COBA) 837 5010 Coordination of Benefits (COB) Flat File Errors

1845 Announcement of Medicare Rural Health Clinics (RHCs) and Federally Qualified Health Centers (FQHCs) Payment Rate Increases

1846 Implementation of Common Working File (CWF) Editing for Diabetes Self-Management Training (DSMT) and Medical Nutrition Therapy (MNT)
Common Working File (CWF) Edits
Duplicate Edits

1847 Changes to the Laboratory National Coverage Determination (NCD) Edit Software for January 2010

1848 Issued to a specific audience, not posted to Internet/Intranet due to Confidentiality of Instruction

1849 Issued to a specific audience, not posted to Internet/Intranet due to Confidentiality of Instruction

1850 Issued to a specific audience, not posted to Internet/Intranet due to Sensitivity of Instruction

1851 Therapy Cap Values for Calendar Year (CY) 2010
The Financial Limitation
Discipline Specific Outpatient Rehabilitation Modifiers - All Claims
Reporting of Service Units With HCPCS
Coding Guidance for Certain CPT Codes - All Claims

1852 Claim Status Category Code and Claim Status Code Update

1853 CY 2010 Fee Schedule Update for Durable Medical Equipment, Prosthetics, Orthotics and Supplies (DMEPOS) Fee Schedule
Gap-filling DMEPOS Fees

1854 January 2010 Quarterly Average Sales Price (ASP) Medicare Part B Drug Pricing Files and Revisions to Prior Quarterly Pricing Files

1855 Instructions for Downloading the Medicare ZIP Code Files for April 2010

1856 Issued to a specific audience, not posted to Internet/Intranet due to Confidentiality of Instruction

1857 New Waived Tests

1858 Quarterly Update to Correct Coding Initiative (CCI) Edits, Version 16.0, Effective January 1, 2010

1859 MIPPA Section 139 Teaching Anesthesiologists
Payment for Anesthesiology Services
Surgical Procedures
Payment for Anesthesia Services Furnished by a Teaching CRNA
1860 Therapy Cap Values for Calendar Year (CY) 2010
The Financial Limitation
Discipline Specific Outpatient Rehabilitation Modifiers - All Claims
Reporting of Service Units With HCPCS
Coding Guidance for Certain CPT Codes - All Claims
1861 Ambulance Inflation Factor for CY 2010
Ambulance Inflation Factor (AIF)
1862 Claim Adjustment Reason Code (CARC), Remittance Advice Remark Code (RARC), and Medicare Remit Easy Print (MREP) Update
1863 Hospice Reporting Requirements for the Attending Physician and the Hospice Physician Certifying the Terminal Illness
Notice of Election (NOE) – Form CMS-1450
Completing the Uniform (Institutional Provider) Bill (Form CMS-1450) for Hospice Election
Medicare Contractor Reply to Notice of Election
Levels of Care Data Required on the Institutional Claim to Medicare Contractor
Data Required on the Institutional Claim to Medicare Contractor
Hospice Attending Physician Services
Independent Attending Physician Services
1864 Home Health Prospective Payment System (HH PPS) Rate Update for Calendar Year 2010
1865 January 2010 Update of the Ambulatory Surgical Center (ASC) Payment System
Definition of Ambulatory Surgical Center (ASC)
Payment and Codling for Presbyopia Correcting IOLs (A-C IOLS)
1866 Positron Emission Tomography (PET) (FDG) for Cervical Cancer
Billing Requirements for PET Scans for Specific indications of Cervical Cancer Performed on or After January 28, 2005
Billing Requirements for CMS - Approved Clinical Trials and Coverage With Evidence Development Claims for PET Scans for Neurodegenerative Diseases, Previously Specified Cancer Indications, and All Other Cancer Indications Not Previously Specified
Billing and Coverage Changes for PET Scans Effective for Services on and After April 3, 2009
Billing and Coverage for PET Scans for Cervical Cancer Effective for

	Services on or After November 13, 2009
1867	Requirements to Prevent the Misuse of Modifiers PA, PB, and PC on Incoming Claims
	Conditional Data Element Requirements for Carriers and DMERCs
1868	Issued to a specific audience, not posted to Internet/Intranet due to Confidentiality of Instruction
1869	New Place of Service (POS) Code for Walk-in Retail Health Clinic
	Place of Service Codes (POS) and Definitions
1870	Hospice Reporting Requirements for the Attending Physician and the Hospice Physician Certifying the Terminal Illness
	Notice of Election (NOE) – Form CMS-1450
	Completing the Uniform (Institutional Provider) Bill (Form CMS-1450) for Hospice Election
	Medicare Contractor Reply to Notice of Election
	Levels of Care Data Required on the Institutional Claim to Medicare Contractor
	Data Required on the Institutional Claim to Medicare Contractor
	Hospice Attending Physician Services
	Independent Attending Physician Services
1871	January 2010 Update of the Hospital Outpatient Prospective Payment System (OPPS)
	Billing for Stem Cell Transplantation
	Changes to the OPPS Pricer Logic, Effective January 1, 2003 Through January 1, 2006
	Annual Updates to the OPPS Pricer for Calendar Year (CY) 2007 and Later
	Reserved
	Billing for "Sometimes Therapy" Services that May be Paid as Non-Therapy Services for Hospital Outpatients
	Billing for Autologous Stem Cell Transplants
	Billing for Allogeneic Stem Cell Transplants
	Correct Coding Initiative (CCI) Edits
	Reserved
	Billing and Payment for Direct Referral for Observation Care Furnished Beginning January 1, 2008
	Cardiac Rehabilitation Programs, Intensive Cardiac Rehabilitation Programs, and Pulmonary Rehabilitation Programs
	Cardiac Rehabilitation Program Services Furnished On or Before Dec. 31, 2009

Coding Requirements for Cardiac Rehabilitation Services Furnished On or Before Dec. 31, 2009
Cardiac Rehabilitation Program Services Furnished On or After January 1, 2010
Coding Requirements for Cardiac Rehabilitation Services Furnished On or After January 1, 2010.
Intensive Cardiac Rehabilitation Program Services Furnished On or After January 1, 2010
Intensive Cardiac Rehabilitation Program Services Furnished On or After January 1, 2010
Pulmonary Rehabilitation Program Services Furnished On or After January 1, 2010
Pulmonary Rehabilitation Program Services Furnished On or After January 1, 2010

1872 January 2010 Integrated Outpatient Code Editor (I/OCE) Specifications Version 11.0

1873 Place of Service (POS) and Date of Service (DOS) Instructions for the Interpretation (Professional Component) and Technical Component of Diagnostic Tests
Carrier Instructions for Place of Service (POS) Codes
Place of Service Instructions for the Interpretation of Diagnostic Tests
Place of Service Instructions for the Technical Component (TC) and Professional Component (PC or Interpretation) of Diagnostic Tests Not Personally Performed or Supervised By A Physician
Date of Service (DOS) Instructions for the Interpretation and Technical Component of Diagnostic Tests

1874 Claim Status Category Code and Claim Status Code Update

1875 Revisions to Consultation Services Payment Policy
Selection of Level of Evaluation and Management Service
Payment for Hospital Observation Services (Codes 99217 - 99220) and Observation or Inpatient Care Services (Including Admission and Discharge Services - (Codes 99234 - 99236)
Payment for Initial Hospital Care Services (Codes 99221 - 99223) and Observation or Inpatient Care Services (Including Admission and Discharge Services) (Codes 99234 - 99236)
Consultation Services (Code 99241 - 99255)
Emergency Department Visits (Codes 99281 - 99285)
Nursing Facility Services (Codes 99304 - 99318)
Prolonged Services With Direct Face-to-Face Patient Contact Service (Codes 99354 - 99357) (ZZZ codes)`

1876 Coverage of Kidney Disease Patient Education Services
Allowable Revenue Codes on CORF 75X Bill Types
Billing Requirements for Coverage of Kidney Disease Patient Education Services
Additional Billing Requirements Applicable to Claims Submitted to Fiscal Intermediaries (FIs)
Healthcare Common Procedure Coding System (HCPCS) Procedure Codes and Applicable Diagnosis Codes
Medicare Summary Notices (MSNs) and Claim Adjustment Reason Codes (CARCs)
Advanced Beneficiary Notice (ABN) Information
1877 Instructions Regarding Processing Claims Rejecting for Gender/Procedure Conflict
Form Locators 16-30
Special Instructions for Services with a Gender/Procedure Conflict
Billing Instructions for Institutional Providers
Billing Instructions for Physicians and Non-Physician Practitioners
1878 Revisions in Timeliness Requirements for Forwarding Misfiled Appeal Requests
Filing a Request for Redetermination
Forwarding Requests to HHS/OMHA
1879 Positron Emission Tomography (PET) (FDG) for Cervical Cancer
Billing Requirements for PET Scans for Specific indications of Cervical Cancer Performed on or After January 28, 2005
Billing Requirements for CMS - Approved Clinical Trials and Coverage With Evidence Development Claims for PET Scans for Neurodegenerative Diseases, Previously Specified Cancer Indications, and All Other Cancer Indications Not Previously Specified
Billing and Coverage Changes for PET Scans Effective for Services on and After April 3, 2009
Billing and Coverage for PET Scans for Cervical Cancer Effective for Services on or After November 13, 2009
1880 PharmacogenomicTesting for Warfarin Response
Pharmacogenomic Testing for Warfarin Response
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1881 Expansion of Medicare Telehealth Services for CY 2010
List of Medicare Telehealth Services
Inpatient Telehealth Consultation Services versus Inpatient Evaluation and

Management (E/M) Visits
Initial Inpatient Telehealth Consultations Defined
Follow-Up Inpatient Telehealth Consultations Defined

1882 January 2010 Update of the Hospital Outpatient Prospective Payment System (OPPS)
Billing for Stem Cell Transplantation
Changes to the OPPS Pricer Logic, Effective January 1, 2003 Through January 1, 2006
Annual Updates to the OPPS Pricer for Calendar Year (CY) 2007 and Later
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1883 Limitation on Home Health Prospective Payment System (HH PPS) Outlier Payments
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1884 Calendar Year (CY) 2010 Annual Update for Clinical Laboratory Fee Schedule and Laboratory Services Subject to Reasonable Charge Payment
Recurring Update Notification Containing New Pricing File Names and Retrieval Dates for 2006
Annual Fee Schedule Updates

1885 Hospice Reporting Requirements for the Attending Physician and the Hospice Physician Certifying the Terminal Illness
Notice of Election (NOE) – Form CMS-1450
Completing the Uniform (Institutional Provider) Bill (Form CMS-1450) for Hospice Election
Medicare Contractor Reply to Notice of Election
Levels of Care Data Required on the Institutional Claim to Medicare Contractor
Data Required on the Institutional Claim to Medicare Contractor
Hospice Attending Physician Services
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1886 Emergency Update to the 2010 Medicare Physician Fee Schedule Database

Medicare Secondary Payer
(CMS-Pub. 100-05)

00 None

Medicare Financial Management
(CMS-Pub. 100-06)

159 Add Physician Specialty Code 27 (Geriatric Psychiatry) to CROWD Form F (Participating Physicians/Supplier Report)
Purpose and Scope
Specialty and Scope
160 Notice of New Interest Rate for Medicare Overpayments and Underpayments – 1st Notification for FY 2010
161 Chapter 7, Internal Control Requirements Update
OMB Circular A-123
CMS Contractor Internal Control Review Process and Timeline
Risk Assessment
Risk Analysis Chart
Documentation and Working Papers
Certification Package for Internal Controls (CPIC)
OMB Circular A-123Appendix A; Internal Control Over Financial Reporting (ICOFR)
Identify and Document Key Controls at the Major Transaction Cycle, Sub-Cycle, or Account Level
CPIP Report of Material Weaknesses
Definitions of Control Deficiency, Significant Deficiency, and Material Weakness
Material Weaknesses Identified During the Reporting Period
CMS Finding Numbers
Initial CAP Report
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List of CMS Contractor Control Objectives
CMS Contractor Cycle Memo
CMS Contractor Cycle Memo Outline
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162 Recovery Audit Contractors (RACs)
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163 Add Physician Specialty Code 27 (Geriatric Psychiatry) to CROWD Form F (Participating Physicians/Supplier Report)

Purpose and Scope
Specialty Codes

Medicare State Operations Manual
(CMS-Pub. 100-07)

53 Revising Chapter 2, "The Certification Process" - Ascertaining Compliance With the Office for Civil Rights (OCR) Requirements
54 Revisions to Appendix PP – "Interpretive Guidelines for Long-Term Care Facilities," Tag F441"
55 Revisions to Appendix PP – "Interpretive Guidelines for Long-Term Care Facilities," Tag F441"
56 Revised Appendix L, "Interpretive Guidelines for Ambulatory Surgical Centers"

Medicare Program Integrity
(CMS-Pub. 100-08)

305 Issued to a specific audience, not posted to Internet/Intranet due to Confidentiality of Instruction
306 Site Verifications
Site Verifications
Site Verifications to Determine Operational Status
Site Verifications To Determine If a Provider or Supplier Meets or Continues To Meet The Regulatory Requirements For Their Provider or Supplier Type
National Supplier Clearinghouse
307 Establishing New Practice Locations in a Different State
Special Procedures for Physicians and Non-Physician Practitioners
308 Rural Air Ambulance
Reasonable" Requests
Emergency Medical Services (EMS) Protocols
Reasonable and Necessary Services
309 Issued to a specific audience, not posted to Internet/Intranet due to Confidentiality of Instruction
310 Issued to a specific audience, not posted to Internet/Intranet due to Confidentiality of Instruction
311 Recovery Audit Contractors (RACs)
Recovery Audit Contractors
312 Home Health Agency (HHA) Capitalization Requirements
Home Health Agencies (HHAs)
HHA Capitalization

313 Program Integrity Manual (PIM) Reorganization Chapters 1, 2, and 7
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Definitions
Medicare Improper Payment Reduction Efforts - Provider Compliance
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Improper Payment Prevention Goals
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Quality of Care Issues and Potential Fraud Issues
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Goal of AC and MAC MR Program
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Coordination Among Contractors
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Maintaining the Confidentiality of MR Medical Records and Documents
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Medical Review for Benefit Integrity (MR for BI)
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Sources of Data for ACs, MACs, PSCs and ZPICs
Annual MR Strategy
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314 Clarification of Deactivation Instructions
Effective Billing Date for Physicians, Non-Physician Practitioners, and Physician or Non-Physician Practitioner Organizations
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315 Provider Enrollment and Veterans Administration (VA) Hospitals
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316 Administrative Appeals Process for Provider Enrollment
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317 Issued to a specific audience, not posted to Internet/Intranet due to Confidentiality of Instruction

318 Implementation of Home Health Agency Program Safeguard Provisions
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CMS or Contractor Issued Deactivations
319 Issued to a specific audience, not posted to Internet/Intranet due to Confidentiality of Instruction
320 Provider Enrollment Revisions
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Intermediary Enrolled Providers and Suppliers
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Federally Qualified Health Centers (FQHCs)
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Religious Non-Medical Health Care Institutions (RNCHIs)
Rural Health Clinics (RHCs)
Skilled Nursing Facilities (SNFs)
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Radiation Therapy Centers
Suppliers of Ambulance Services
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Registered Dietitians
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Other Part B Services
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Medicaid State Agencies
Suppliers Not Eligible to Participate
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Standards for Initial Applications
Paper Applications - Timeliness
Paper Applications - Accuracy
Web-Based Applications - Timeliness
Web-Based Applications - Accuracy
Standards for Changes of Information
Paper Applications – Timeliness
Paper Applications – Accuracy
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Web-Based Applications – Accuracy
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Effective Billing Date for Physicians, Non-Physician Practitioners, and Physician or Non-Physician Practitioner Organizations
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Reserved
Reserved
Reserved
Reserved
Reserved
Reserved

Reserved
321 Verification of Legalized Status
Verification of Legalized Status

Medicare Contractor Beneficiary and Provider Communications (CMS-Pub. 100-09)

00 None

Medicare End-Stage Renal Disease Network Organizations (CMS Pub 100-14)

00 None

Medicare Managed Care (CMS-Pub. 100-16)

92 Chapter 4, "Benefits and Beneficiary Protections"
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General Requirements
Basic Rule
Types of Benefits
Original Medicare, Part A and B, Covered Benefits
Part D Rules for MA Plans
Anti-Discrimination Requirements
Other Federal Requirements
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Caps on Enrollee Financial Responsibility
Multiple Plan Offerings and Benefit Caps
Complementary Benefits
Provider Qualifications
Original Medicare Covered Services with Benefit Periods
Waiting Periods - Exclusions That Are Not Present in Original Medicare
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Chiropractic Services
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MAO Responsibility
Stabilization of an Emergency Medical Condition
Limit on Enrollee Charges for Emergency Services
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Services of Non-contracting Providers and Suppliers
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Definition of Supplemental Benefit
Anti-Discrimination and Anti-Steerage Requirements
Examples
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Medical Supplies Associated with the Delivery of Insulin
Part D Vaccine Administration
Supplemental Benefits Extending Original Medicare Benefits
Benefits during Disasters and Catastrophic Events
Over the Counter (OTC) Benefits
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OTC Under Part C and Under Part D
Access to OTC Benefits
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Part B and D OTC Items
Marketing Guidance Regarding OTC Benefits
CMS Table of OTC Items
Cost Sharing and Deductible Guidance
Guidance on Acceptable Cost Sharing
Cost-Sharing Rules for RPPOs
Value-Added Items and Services (VAIS)
The Basic Definition
Examples of VAIS
Additional VAIS Requirements
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Content of Enrollee Information and Other MA Obligations
Incapacitated Enrollees
Community Education Requirements
MAO Rights
Appeal and Anti-Discrimination Rights
National and Local Coverage Determinations
Overview
Local Coverage Determinations
Definitions Related to National Coverage Determinations (NCDs)
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Sources for Obtaining Information
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Mid-Year Benefit Enhancements (MYBE)
Multi-Year Benefits
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PPO Point of Service (POS)
PPO Coverage Out-of-Service Area
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Prompt Payment
POS-Related Data
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Access to and Availability of Services
Access and Availability Rules for Coordinated Care Plans
Rules for All MAOs to Ensure Continuity of Care
Access for Emergency, Urgently Needed Services and Dialysis
Access and Plan Type
Coordination of Benefits With Employer/Union Group Health Plans and Medicaid
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Requirements, Rights, and Beneficiary Protection
Employer/Union Plans
Medicare Secondary Payer (MSP) Procedures
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Responsibilities of the MAO
Medicare Benefits Secondary to Group Health Plans (GHPs) and Large Group

Health Plans (LGHPs)
Collecting From Other Entities
Collecting From Other Insurers or the Enrollee
Collecting From GHPs and LGHPs
MSP Rules and State Laws
MAO Renewal Options and Crosswalk
Introduction
New Plan
Renewal Plan
Consolidated Renewal Plan
Renewal Plan with a Service Area Expansion (SAE)
Renewal Plan with a Service Area Reduction (SAR)
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Service Area
Definitions
Factors That Influence Service Area Approvals
The "County Integrity Rule"

Medicare Business Partners Systems Security
(CMS-Pub. 100-17)

00 None

Demonstrations
(CMS-Pub. 100-19)

62 Payments to Practices Participating in the Electronic Health Records (EHR) Demonstration

One Time Notification
(CMS-Pub. 100-20)

564 Medicare Part B Portable X-ray Supplier Enrollment Revalidation
565 Common Edits and Enhancements Module (CEM) Continued Analysis and Design and Implementation for the Multi Carrier System Contractor Only
566 Annual Systematic Synchronization of Medicare Participating Physician or Supplier Agreement (PAR) Status Between the Multi Carrier System Provider Enrollment, Chain and Ownership System (PECOS)
567 Home Health Agency Provider Enrollment Revalidation
568 One-Time Mailing of Supplier Responsibilities Letter - Individual Practitioners

Only
569 Community Mental Health Center Comprehensive Outpatient Rehabilitation Facility Federally Qualified Health Center and Rural Health Clinic Provider Enrollment Revalidation
570 Issued to a specific audience, not posted to internet/Intranet due to Confidentiality of Instruction
571 Modification of the File-Based RAC Mass Adjustment Process in FISS
572 Expansion of the Current Scope of Editing for Ordering/Referring Providers for Claims processed by Medicare Carriers and Part B Medicare Administrative Contractors
573 Implementation of a File-Based RAC Mass Adjustment Process in VMS
574 Various OIG Reports that have Medical Review Implications
575 Version 005010 Inbound 837 Institutional (837I) and Inbound 837 Professional (837P) Flat Files Implementation
576 Replacement of New York State BSIs to Support the Jurisdiction 13 A/B MAC Merge of the Three Part B New York and the Part B Connecticut CICS Production and User Acceptance Test Regions
577 Implementation of Health Insurance Portability and Accountability Act of 1996 (HIPAA) version 5010 for Transaction 835 - Health Care Claim Payment/Advice and Updated Standard Paper Remit (SPR)
578 5010-D.0 Project Receipt, Control and Balancing Initial Phase for Durable Medical Equipment (DME) Only
579 Version 005010 Inbound 837 Institutional (837I) and Inbound 837 Professional (837P) Flat Files Implementation
580 Allow Zoned Program Integrity Contractors (ZPICs) to Access Medicare Administrative Contractors (MACs) by ZPIC Zone
581 For Analysis Only --Clarification on the Proper Billing of the Statement Covers From and Admission/Start of Care Dates on Institutional Claims
582 Update to the Common Working File (CWF) Edits to Recognize the "RA" and "RB" Modifiers for Durable Medical Equipment (DME) Repairs and Replacements
583 Pilot to Transition a Segment of the WPS Legacy Workload (formerly processed by Mutual of Omaha) to the J1 A/B Medicare Administrative Contractor
584 Reporting Requirements for the Fiscal Intermediary Shared System (FISS) Medicare Fraud Edit Module
585 The shared system maintainer shall not report services on the 1565C lines 5-7 when the Medicare allowed amount is greater than zero and the Medicare paid amount is zero
586 Validating the Billing of End Stage Renal Disease (ESRD) 50/50 Rule Modifier
587 Issued to a specific audience, not posted to internet/Intranet due to

Confidentiality of Instruction
588 Reflecting the Payment Ambulatory Payment Classification (APC) on the Remittance Advice (RA)
589 Continuation of Maintenance and Servicing Payments in CY 2010 for Certain Oxygen Equipment as a Result of the Medicare Improvements for Patients and Providers Act (MIPPA) of 2008
590 Rounds One Rebid of the Durable Medical Equipment, Prosthetics, Orthotics, and Supplies (DMEPOS) Competitive Bidding Program - Phase 8A: Hospital Exception
591 Incorporation of the National Provider Identifier (NPI) into the National Supplier Clearinghouse (NSC) Enrollment System and Related Instructions
592 Round One Rebid of the Durable Medical Equipment, Prosthetics, Orthotics and Supplies (DMEPOS) Competitive Bidding Program—Phase 8C of Implementation: Repairs and Replacements
593 Durable Medical Equipment, Prosthetics, Orthotics and Supplies (DMEPOS) Competitive Bidding Program Round One Rebid Implementation--Phase 8B: Oxygen Modality
594 Issued to a specific, not posted to Internet/Intranet due to Confidentiality of Instruction
595 Ensuring the Denial of Claims for Ambulance Services Rendered to Beneficiaries in Part A Skilled Nursing Facility Stays
596 Phase 2 Base System Changes for Implementation of the Next Version of the Health Insurance Portability and Accountability Act (HIPAA) – Multi Carrier System (MCS) Only
597 Issued to a specific audience, not posted to Internet/Intranet due to Confidentiality of Instruction
598 Instructions on How Contractors Must Process Medicare Secondary Payer Claims When Negative Claim Adjustment Reason Code (CARC) Amounts are Received in the Claim Adjustment Segment (CAS) for Certain MSP Claims that are Suspended
599 Integrated Outpatient Code Editor (IOCE) PC (interactive and batch) Re-Write
600 Elimination of National Standard Format (NSF) Code from the VMS System
601 Creation of Receipt Date for Multi-Carrier System (MCS)
602 HIPAA 5010 Activity - Medicare Administrative Contractor (MAC) Certification Test Package Development
603 Remittance Advice (RA) Codes and Medicare Summary Notice (MSN) Messages Regarding Oxygen Equipment
604 Payment for Implantable Tissue Markers (HCPCS Code A4648)
605 Implementation of the Updated Health Insurance Portability and Accountability Act (HIPAA) 005010 837 Institutional (837I) Edits and 005010 837

	Professional (837P) Edits
606	5010-D.0 Project Healthcare Claims Acknowledgement 277CA Generator Implementation (FISS and MCS ONLY)
607	Allow Zoned Program Integrity Contractors (ZPICs) to Access Medicare Administrative Contractors (MACs) by ZPIC Zone
608	Version D.0 Inbound National Council for Prescription Drug Programs (NCPDP) Flat File Analysis and Design
609	Implementation of the Health Insurance Portability and Accountability Act HIPAA) Version 5010 - MAC Jurisdiction 12 Only
610	Implementation of the HIPAA Version 5010 276/277 Claim Status Second Phase
611	Implementation of a File-Based RAC Mass Adjustment Process in MCS
612	Jurisdiction 10 A/B MAC Merge of the Part B Alabama, Georgia, and Tennessee CICS Production and User Acceptance Test Regions
613	Summary of Policies in the 2010 Medicare Physician Fee Schedule (MPFS) and the Telehealth Originating Site Facility Fee Payment Amount
614	Guidance on Implementing System Edits for Certain Durable Medical Equipment, Prosthetics, Orthotics, and Supplies (DMEPOS)
615	Summary of Policies in the 2010 Medicare Physician Fee Schedule (MPFS) and the Telehealth Originating Site Facility Fee Payment Amount

Addendum IV—Regulation Documents Published in the Federal Register October Through December 2009

Publication Date	FR Vol. 74 Page Number	42 CFR Parts Affected	File Code	Title of Regulation
October 1, 2009	50712	412	CMS-1538-CN	Medicare Program; Inpatient Rehabilitation Facility Prospective Payment System for Federal Fiscal Year 2010; Correction.
October 7, 2009	51496	412, 413, 415, 485, and 489	CMS-1406-CN	Medicare Program; Changes to the Hospital Inpatient Prospective Payment Systems for Acute Care Hospitals and Fiscal Year 2010 Rares and to the Long-Term Care Hospital Prospective Payment System and Rate Year 2010 Rates; Correction.
October 7, 2009	51664	144, 146, and 148	CMS-4137-IFC	Interim Final Rules Prohibiting Discrimination Based on Genetic Information in Health Insurance Coverage and Group Health Plans.
October 22, 2009	54571	----------	CMS-8039-N	Medicare Program; Medicare Part B Monthly Actuarial Rates, Premium Rate, and Annual Deductible Beginning January 1, 2010.

October 22, 2009	54579	----------	CMS-8037-N	Medicare Program; Inpatient Hospital Deductible and Hospital and Extended Care Services Coinsurance Amounts for Calendar Year 2010.
October 22, 2009	54581	----------	CMS-8038-N	Medicare Program; Part A Premium for Calendar Year 2010 for the Uninsured Aged and for Certain Disabled Individuals Who Have Exhausted Other Entitlement.
October 22, 2009	54634	----------	CMS-4085-P	Medicare Program; Policy and Technical Changes to the Medicare Advantage and the Medicare Prescription Drug Benefit Programs.
October 23, 2009	54832	----------	CMS-2900-FN	Medicare and Medicaid Programs; Conditional Approval of the Community Health Accreditation Program for Continued Deeming Authority for Hospices.
October 23, 2009	54835	----------	CMS-1505-N	Medicare Program; Criteria for Medicare Coverage of Inpatient Hospital Rehabilitation Services.
October 30,2009	56151	440, 447, and 457	CMS-2232-P2 CMS-2244-P2	Medicaid Program; State Flexibility for Medicaid Benefit Packages and Premiums and Cost Sharing.

October 30, 2009	56202	----------	CMS-1565-N	Medicare Program; Meeting of the Practicing Physicians Advisory Council, December 7, 2009.
November 4, 2009	57127	410, 413, and 414	CMS-1418-N	Medicare Programs; End-Stage Renal Disease Prospective Payment System; Extension of Comment Period.
November 10, 2009	58078	409, 424, and 484	CMS1560-F	Medicare Program; Home Health Prospective Payment System; Rate Update for Calendar Year 2010.
November 20, 2009	60316	410, 416, and 419	CMS-1414-FC	Medicare Program; Changes to the Hospital Outpatient Prospective Payment System and CY 2010 Payment Rates; Changes to the Ambulatory Surgical Center Payment System and CY 2010 Payment Rates.
November 23, 2009	61096	440 and 441	CMS-2261-WN	Medicare Program; Coverage for Rehabilitative Services; Withdrawal.
November 25, 2009	61738	410, 411, 414, 415, 485, and 498	CMS-1413-FC	Medicare Program; Payment Policies Under the Physician Fee Schedule and Other Revisions to Part B for CY 2010.
November 25, 2009	62189	----------	CMS-6023-N	Medicare Program; Solicitation of Independent Accrediting Organizations To Participate in the Advanced Diagnostic Imaging Supplier Accreditation Program.

November 27, 2009	62330	----------	CMS-2476-FN	Medicare and Medicaid Programs; Conditional Approval of Application by the American Association for Accreditation of Ambulatory Surgery Facilities for Continued Deeming Authority for Ambulatory Surgical Centers.
November 27, 2009	62333	----------	CMS-2302-FN	Medicare and Medicaid Programs; Approval of the Application by the Joint Commission for Continued Deeming Authority for Hospitals.
November 27, 2009	62336	----------	CMS-2305-FN	Medicare and Medicaid Programs; Approval of the Accreditation Commission for Health Care for Deeming Authority for Hospices.
November 27, 2009	62339	----------	CMS-1513-N	Medicare Program; Town Hall Meeting on the Fiscal Year 2011 Applications for New Medical Services and Technologies Add-on Payments and Informational Workshop on the Application Process and Criteria forNew Medical Services and Technologies Add-on Payments.
November 30, 2009	62501	440, 447, and 457	CMS-2232-F3 CMS-2244-F4	Medicaid Program; State Flexibility for Medicaid Benefit Packages and Premiums and Cost Sharing.

November 30, 2009	62579	----------	CMS-6023-CN	Medicare Program; Solicitation of Independent Accrediting Organizations To Participate in the Advanced Diagnostic Imaging Supplier Accreditation Program; Correction.
November 30, 2009	62580	----------	CMS-3218-N	Medicare Program; Meeting of the Medicare Evidence Development and Coverage Advisory Committee, January 27, 2010.
December 9, 2009	65296	405	CMS-4064-F	Medicare Program; Changes to the Medicare Claims Appeal Procedures.
December 9, 2009	65340	423	CMS-4127-F	Medicare Program; Application of Certain Appeals Provisions to the Medicare Prescription Drug Appeals Process.
December 10, 2009	65449	410, 411, 414, 415, 485, and 498	CMS-1413-CN3	Medicare Program; Payment Policies Under the Physician Fee Schedule and Other Revisions to Part B for CY 2010; Corrections.
December 18, 2009	67232	----------	CMS-2311-NC	Medicaid Program and Children's Health Insurance Program; Model of Interstate Coordinated Enrollment and Coverage Process for Low-Income Children.

December 18, 2009	67234	----------	CMS-1416-N	Medicare Program; First Semi-Annual Meeting of the Advisory Panel on Amulatory Payment Classification Groups—Feburary 17-19, 2010.
December 18, 2009	67238	----------	CMS-3221-N	Medicare Program; Physician Quality Reporting Initiative (PQRI): Listening Session—February 2, 2010.
December 18, 2009	67240	----------	CMS-7017-N	Medicare Program; Meeting of the Advisory Panel on Medicare Education, February 3, 2010.
December 18, 2009	67310	----------	CMS-9056-N	Medicare and Medicaid Programs; Quarterly Listing of Program Issuances—July Through September 2009.
December 29, 2009	68846	----------	CMS-2474-N	Medicaid and CHIP Programs; Initial Core Set of Children's Healthcare Quality Measures for Voluntary Use by Medicaid and CHIP Programs.
December 31, 2009	69502	410, 416, and 419	CMS-1414-CN	Medicare Program; Changes to the Hospital Outpatient Prospective Payment System and CY 2010 Payment Rates; Changes to the Ambulatory Surgical Center Payment System and CY 2010 Payment Rates; Corrections.

Addendum V—National Coverage Determinations [October Through December 2009]

A national coverage determination (NCD) is a determination by the Secretary with respect to whether or not a particular item or service is covered nationally under Title XVIII of the Social Security Act, but does not include a determination of what code, if any, is assigned to a particular item or service covered under this title, or determination with respect to the amount of payment made for a particular item or service so covered. We include below all of the NCDs that were issued during the quarter covered by this notice. The entries below include information concerning completed decisions as well as sections on program and decision memoranda, which also announce pending decisions or, in some cases, explain why it was not appropriate to issue an NCD. We identify completed decisions by the section of the NCDM in which the decision appears, the title, the date the publication was issued, and the effective date of the decision. Information on completed decisions as well as pending decisions has also been posted on the CMS Web site at http://cms.hhs.gov/coverage.

Title	NCDM Section	TN #	Issue Date	Effective Date
FDG PET for Solid Tumors and Myeloma	220.6 - 220.6.17	R108NCD	10/16/2009	04/03/2009
Magnetic Resonance Imaging (MRI)	220.2	R107NCD	10/16/2009	09/28/2009
Changes to the Laboratory National Coverage Determination (NCD) Edit Software for January 2010		R184NCD	11/06/2009	01/01/2010
Positron Emission Tomography (PET)(FDG) for Cervical Cancer	220.6.17	R110NCD	12/18/2009	11/10/2009
Pharmacogenomic Testing for Warfarin Response	90.1	R111NCD	12/18/2009	08/03/20009

Addendum VI
FDA-Approved Category B IDEs
[October Through December 2009]

Under the Food, Drug, and Cosmetic Act (21 U.S.C. 360c) devices fall into one of three classes. To assist CMS under this categorization process, the FDA assigns one of two categories to each FDA-approved IDE. Category A refers to experimental IDEs, and Category B refers to non-experimental IDEs. To obtain more information about the classes or categories, please refer to the **Federal Register** notice published on April 21, 1997 (62 FR 19328).

The following list includes all Category B IDEs approved by FDA during the fourth quarter, October through December 2009.

IDE	Category	IDE	Category
BB13053	B	G090175	B
BB13955	B	G090176	B
BB14160	B	G090180	B
BB14206	B	G090189	B
G080098	B	G090192	B
G090013	B	G090194	B
G090018	B	G090197	B
G090039	B	G090198	B
G090043	B	G090199	B
G090054	B	G090201	B
G090106	B	G090214	B
G090108	B	G090215	B
G090110	B	G090218	B
G090147	B	G090219	B
G090148	B		
G090151	B		
G090154	B		
G090161	B		
G090169	B		
G090170	B		
G090171	B		
G090173	B		
G090174	B		

Addendum VII
Approval Numbers for Collections of Information

Below we list all approval numbers for collections of information in the referenced sections of CMS regulations in Title 42; Title 45, Subchapter C; and Title 20 of the Code of Federal Regulations, which have been approved by the Office of Management and Budget:

OMB Control Numbers	Approved CFR Sections in Title 42, Title 45, and Title 20 (Note: Sections in Title 45 are preceded by "45 CFR," and sections in Title 20 are preceded by "20 CFR")
OMB NUMBER	Approved CFR Sections
0938-0008	Part 424 Subpart C
0938-0022	413.20, 413.24, 413.106
0938-0023	424.103
0938-0025	406.28, 407.27
0938-0027	486.100 - 486.110
0938-0033	405.807
0938-0035	407.40
0938-0037	413.20, 413.24
0938-0041	408.6, 408.202
0938-0042	410.1, 410.40, 424.124, 424.601, 414.605, 414.610, 414.615, 414.620, 414.625, 424.32
0938-0045	405.711
0938-0046	405.2133
0938-0050	413.20, 413.24
0938-0062	431.151, 435.151, 435.1009, 440.220, 440.250, 442.1, 442.10 - 442.16, 442.30, 442.40, 442.42, 442.100 - 442.119, 483.400 - 483.480, 488.332, 488.400, 498.3 - 498.5
0938-0065	485.701 - 485.729
0938-0074	491.1 - 491.11
0938-0080	406.7, 406.13
0938-0086	420.200 - 420.206, 455.100 - 455.106
0938-0101	430.30
0938-0102	413.20, 413.24

0938-0107	413.20, 413.24
0938-0146	431.800 - 431.865
0938-0147	431.800 - 431.865
0938-0151	493.1 - 493.2001
0938-0155	405.2470
0938-0193	430.10 - 430.20, 440.167
0938-0202	413.17, 413.20
0938-0214	411.25, 489.2, 489.20
0938-0236	413.20, 413.24
0938-0242	488.26 and 442.30
0938-0245	407.10, 407.11
0938-0246	431.800-431.865
0938-0251	406.7
0938-0266	416.1-416.150
0938-0267	485.56, 485.58, 485.60, 485.64, 485.66
0938-0269	412.116, 412.632, 413.64, 413.350, 484.245
0938-0270	405.376
0938-0272	440.180, 441.300 - 441.310
0938-0273	485.701 - 485.729
0938-0279	424.5
0938-0287	447.31
0938-0296	413.170, 413.184
0938-0301	413.20, 413.24, 415.60
0938-0302	418.22, 418.24, 418.28, 418.56, 418.58, 418.70, 418.74, 418.83, 418.96, 418.100
0938-0313	489.11, 489.20
0938-0328	482.12, 482.13, 482.21, 482.22, 482.27, 482.30, 482.41, 482.43, 482.45, 482.53, 482.56, 482.57, 482.60, 482.61, 482.62, 482.66, 485.618, 485.631
0938-0334	491.9, 491.10
0938-0338	486.104, 486.106, 486.110
0938-0354	441.50
0938-0355	442.30, 488.26
0938-0358	488.26
0938-0359	412.40 - 412.52
0938-0360	488.60
0938-0365	484.10, 484.12, 484.14, 484.16, 484.18, , 484.36, 484.48, 484.52
0938-0372	414.330
0938-0378	482.60 - 482.62
0938-0379	442.30, 488.26
0938-0386	405.2100 - 405.2171

0938-0391	488.18, 488.26, 488.28
0938-0426	480.104, 480.105, 480.116, 480.134
0938-0429	447.53
0938-0443	478.18, 478.34, 478.36, 478.42
0938-0444	1004.40, 1004.50, 1004.60, 1004.70
0938-0445	412.44, 412.46, 431.630, 476.71, 476.74, 476.78
0938-0447	405.2133
0938-0448	405.2133, **45 CFR** 5, 5b; **20 CFR** Parts 401, 422E
0938-0449	440.180, 441.300 - 441.310
0938-0454	424.20
0938-0456	412.105
0938-0463	413.20, 413.24, 413.106
0938-0467	431.17, 431.306, 435.910, 435.920, 435.940 - 435.960
0938-0469	417.126, 422.502, 422.516
0938-0470	417.143, 422.6
0938-0477	412.92
0938-0484	424.123
0938-0501	406.15
0938-0502	433.138
0938-0512	486.301 - 486.348
0938-0526	475.102, 475.103, 475.104, 475.105, 475.106
0938-0534	410.38, 424.5
0938-0544	493.1 - 493.2001
0938-0564	411.32
0938-0565	411.20 - 411.206
0938-0566	411.404, 411.406, 411.408
0938-0573	412.256
0938-0578	447.534
0938-0581	493.1 - 493.2001
0938-0599	493.1 - 493.2001
0938-0600	405.371, 405.378, 413.20
0938-0610	417.436, 417.801, 422.128, 430.12, 431.20, 431.107, 483.10, 484.10, 489.102
0938-0612	493.801, 493.803, 493.1232, 493.1233, 493.1234, 493.1235, 493.1236, 493.1239, 493.1241, 493.1242, 493.1249, 493.1251, 493,1252, 493.1253, 493.1254, 493.1255, 493.1256, 493.1261, 493.1262, 493.1263, 493.1269, 493.1273, 493.1274, 493.1278, 493.1283, 493.1289, 493.1291, 493.1299
0938-0618	433.68, 433.74, 447.272
0938-0653	493.1771, 493.1773, 493.1777
0938-0657	405.2110, 405.2112

0938-0658	405.2110, 405.2112
0938-0667	482.12, 488.18, 489.20, 489.24
0938-0686	493.551 - 493.557
0938-0688	486.301 - 486.325
0938-0691	412.106
0938-0692	466.78, 489.20, 489.27
0938-0701	422.152
0938-0702	**45 CFR** 146.111, 146.115, 146.117, 146.150, 146.152, 146.160, 146.180
0938-0703	**45 CFR** 148.120, 148.122, 148.124, 148.126, 148.128
0938-0714	411.370 - 411.389
0938-0717	424.57
0938-0721	410.33
0938-0723	421.300 - 421.316
0938-0730	405.410, 405.430, 405.435, 405.440, 405.445, 405.455, 410.61, 415.110, 424.24
0938-0732	417.126, 417.470
0938-0734	**45 CFR** 5b
0938-0739	413.337, 413.343, 424.32, 483.20
0938-0749	424.57
0938-0753	422.000 - 422.700
0938-0754	441.151, 441.152
0938-0758	413.20, 413.24
0938-0760	484.55, 484.205, 484.245, 484.250
0938-0761	484.11, 484.20
0938-0763	422.250, 422.252, 422.254, 422.256, 422.258, 422.262, 422.264, 422.266, 422.270, 422.300, 422.304, 422.306, 422.308, 422.310, 422.312, 422.314, 422.316, 422.318, 422.320, 422.322, 422.324, 423.251, 423.258, 423.265, 423.272, 423.286, 423.293, 423.301, 423.308, 423.315, 423.322, 423.329, 423.336, 423.343, 423.346, 423.350
0938-0770	410.2
0938-0778	422.111, 422.564
0938-0779	417.126, 417.470, 422.64, 422.210
0938-0781	411.404, 484.10
0938-0786	438.352, 438.360, 438.362, 438.364
0938-0790	460.12 - 460.210
0938-0792	491.8, 491.11
0938-0796	422.64
0938-0798	413.24, 413.65, 419.42
0938-0802	419.43
0938-0818	410.141 - 410.146, 414.63

0938-0829	422.568
0938-0832	Parts 489 and 491
0938-0833	483.350 - 483.376
0938-0841	431.636, 457.50, 457.60, 457.70, 457.340, 457.350, 457.431, 457.440, 457.525, 457.560, 457.570, 457.740, 457.750, 457.810, 457.940, 457.945, 457.965, 457.985, 457.1005, 457.1015, 457.1180
0938-0842	412.23, 412.604, 412.606, 412.608, 412.610, 412.614, 412.618, 412.626, 413.64
0938-0846	411.352 - 411.361
0938-0857	Part 419
0938-0860	Part 419
0938-0866	**45 CFR** Part 162
0938-0872	413.337, 483.20
0938-0873	422.152
0938-0874	**45 CFR** Parts 160 and 162
0938-0878	Part 422 Subparts F and G
0938-0887	**45 CFR** 148.316, 148.318, 148.320
0938-0897	412.22, 412.533
0938-0907	412.230, 412.304, 413.65
0938-0910	422.620, 422.624, 422.626
0938-0911	426.400, 426.500
0938-0915	421.120, 421.122
0938-0916	483.160
0938-0920	438.6, 438.8, 438.10, 438.12, 438.50, 438.56, 438.102, 438.114, 438.202, 438.206, 438.207, 438.240, 438.242, 438.402, 438.404, 438.406, 438.408, 438.410, 438.414, 438.416, 438.604, 438.710, 438.722, 438.724, 438.810
0938-0921	414.804
0938-0931	**45 CFR** 142.408, 162.408, and 162.406
0938-0933	438.50
0938-0935	422 Subparts F and K
0938-0936	423
0938-0939	405.502
0938-0944	422.250, 422.252, 422.254, 422.256, 422.258, 422.262, 422.264, 422.266, 422.270, 422.300, 422.304, 422.306, 422.308, 422.310, 422.312, 422.314, 422.316, 422.318, 422.320, 422.322, 422.324, 423.251, 423.258, 423.265, 423.272, 423.279, 423.286, 423.293, 423.301, 423.308, 423.315, 423.322, 423.329, 423.336, 423.343, 423.346, 423.350
0938-0950	405.910
0938-0951	423.48

0938-0953	405.1200 and 405.1202
0938-0954	414.906, 414.908, 414.910, 414.914, 414.916
0938-0957	Part 423 Subpart R
0938-0964	403.460, 411.47
0938-0969	421.405
0938-0975	423.562(a)
0938-0976	423.568
0938-0977	Part 423 Subpart R
0938-0978	423.464
0938-0982	422.310, 423.301, 423.322, 423.875, 423.888
0938-0986	412.20-412.30
0938-0990	423.56
0938-0992	423.505, 423.514
0938-0993	1396
0938-0997	424.5
0938-0999	Part 424 Subpart C
0938-1004	423.502
0938-1009	411.357(v), 411.357(w)
0938-1013	423.56(e)
0938-1019	405.1206, 422.622
0938-1020	412.525(a)(4), 412.529(c)(3), 412.84(i)(2)
0938-0123	422.152(a)(1), 422.152(a)(2)
0938-1024	1396
0938-1026	447.520
0938-1013	423.56e
0938-1019	405.1206, 422.622
0938-1023	422.152a
0938-1033	455
0938-1034	489.20
0938-1049	424.36(b)

Addendum VIII
Medicare-Approved Carotid Stent Facilities
[October Through December 2009]

On March 17, 2005, we issued our decision memorandum on carotid artery stenting. We determined that carotid artery stenting with embolic protection is reasonable and necessary only if performed in facilities that have been determined to be competent in performing the evaluation, procedure, and follow-up necessary to ensure optimal patient outcomes. We have created a list of minimum standards for facilities modeled in part on professional society statements on competency. All facilities must at least meet our standards in order to receive coverage for carotid artery stenting for high risk patients.

Facility	Provider Number	Effective Date	State	Additional Information
University of Miami Hospital 1400 NW 12th Avenue Miami, FL 33136-5511	100009	10/15/2009	FL	
Grays Harbor Community Hospital 915 Anderson Drive Aberdeen, WA 98520	500031	12/10/2009	WA	
Mercy Medical Center - Sioux City, Iowa 801 5th Street Sioux City, IA 51101	160153	12/10/2009	IA	

Addendum IX

American College of Cardiology's National Cardiovascular Data Registry Sites [October Through December 2009]

In order to obtain reimbursement, Medicare national coverage policy requires that providers implanting ICDs for primary prevention clinical indications (that is, patients without a history of cardiac arrest or spontaneous arrhythmia) report data on each primary prevention ICD procedure. This policy became effective January 27, 2005. Details of the clinical indications that are covered by Medicare and their respective data reporting requirements are available in the Medicare National Coverage Determination (NCD) Manual, which is on the Centers for Medicare & Medicaid Services (CMS) Web site at http://www.cms.hhs.gov/Manuals/IOM/itemdetail.asp?filterType=none&filterByDID=99&sortByDID=1&sortOrder=ascending&itemID=CMS014961 .

A provider can use either of two mechanisms to satisfy the data reporting requirement. Patients may be enrolled either in an Investigational Device Exemption trial studying ICDs as identified by the FDA or in the American College of Cardiology's National Cardiovascular Data Registry (ACC-NCDR) ICD registry. Therefore, in order for a beneficiary to receive a Medicare-covered ICD implantation for primary prevention, the beneficiary must receive the scan in a facility that participates in the ACC-NCDR ICD registry.

We maintain a list of facilities that have been enrolled in this registry. Addendum IX includes the facilities that have been designated in the quarter covered by this notice.

Facility Name	Address1	Address2	City	State	Zip
Abbott Northwestern Hospital	800 East 28th Street (Internal Zip 33210)		Minneapolis	MN	55407
Abilene Regional Medical Center	6250 Highway 83-84 Antilley Road		Abilene	TX	97606
Abington Memorial Hospital	1200 York Road	5 Toll-AMH	Abington	PA	19446
Adena Regional Medical Center	272 Hospital Road		Chillicothe	OH	45601
Adventist Bolingbrook Hospital	120 North Oak Street		Bolingbrook	IL	60440
Adventist Glen Oaks Hospital	701 Winthrop Avenue		Glendale Heights	IL	60139
Adventist Hinsdale Hospital	120 N. Oak Street		Hinsdale	IL	60521
Adventist LaGrange Memorial Hospital	120N. Oak Street		Hinsdale	IL	60521
Adventist Medical Center	10123 SE Market Street		Portland	OR	97216
Advocate BroMenn Medical Center	Virginia & Franklin Avenues		Normal	IL	61761
Advocate Christ Medical Center	4440 West 95th Street	#127NOB	Oak Lawn	IL	60453
Advocate Condell Medical Center	801 S. Milwaukee Avenue		Libertyville	IL	60048

Advocate Good Shepherd Hospital	450 W. Highway 22		Barrington	IL	60010
Advocate Illinos Masonic Medical Center	836 W. Wellington Avenue		Chicago	IL	60657
Advocate Lutheran General Hospital	1775 Dempster Street		Park Ridge	IL	60068
Affinity Medical Center	400 Austin Avenue		Massillon	OH	44646
Aiken Regional Medical Center	302 University Parkway		Aiken	SC	29802
Akron City Hospital	525 East Market Street		Akron	OH	44309-2090
Akron General Medical Center	400 Wabash Avenue	Heart & Vascular Center	Akron	OH	44307
Alamance Regional Medical Center	PO Box 202		Burlington	NC	27216
Alaska Regional Hospital	2801 Debarr Road		Anchorage	AK	99508
Albany Medical Center Hospital	43 New Scotland Avenue		Albany	NY	12208
Albert Einstein Medical Center	5501 Old York Road		Philadelphia	PA	19141
Alegent Health Bergan Mercy Medical Center	7500 Mercy Road		Omaha	NE	68124
Alegent Health Immanuel Medical Center	6828 North 72nd Street	Suite 3000N	Omaha	NE	68122-1709

Alegent Health Mercy Hospital	6901 North 72nd Street		Omaha	NE	68122
Alexian Brothers Medical Center	800 Biesterfield Road		Elk Grove Village	IL	60007-3311
Allegheny General Hosptial	320 East North Avenue		Pittsburg	PA	15212
Allegiance Health (W.A. Foote Memorial Hospital)	205 N. East Avenue	Heart Center 1st Floor	Jackson	MI	49201
Alpena Regional Medical Center	1501 W. Chisholm Street		Alpena	MI	49707
Alta Bates Medical Center	2450 Ashby Avenue		Berkeley	CA	94705
Alta Bates Summit Medical Center	350 Hawthorne Avenue		Oakland	CA	94609
Altoona Hospital	620 Howard Avenue		Altoona	PA	16601
Altru Health System	1200 South Columbia Road		Grand Forks	ND	58201
Alvarado Hospital	6645 Alvarado Road		San Diego	CA	92120
Amarillo Endoscopy Center	6833 Plum Creek Drive		Amarillo	TX	79124
AnMed Health	800 North Fant Street		Anderson	SC	29621
Anna Jaques Hospital	25 Highland Avenue		Newburyport	MA	01950
Anne Arundel Medical Center	2001 Medical Parkway		Annapolis	MD	21404
Appleton Medical Center/ThedaClark Medical Center	1818 N. Meade Street	Rm 165-B	Appleton	WI	54911

Aria Health	Knights and Red Lion Roads		Philadelphia	PA	19114
Arizona Heart Hospital	1930 East Thomas Road		Phoenix	AZ	85016
Arizona Regional Medical Center	4838 East Baseline Road	Suite 109-110	Mesa	AZ	85206
Arkansas Heart Hospital	1701 S. Shackelford Road		Little Rock	AR	72202
Arlington Memorial Hospital	800 W. Randol Mill Road		Arlington	TX	76012
Arnot-Ogden Medical Center	600 Roe Avenue		Elmira	NY	14905
Arrowhead Hospital	18701 N. 67th Avenue		Glendale	AZ	85308
Ashtabula County Medical Center	2420 Lake Avenue		Ashtabula	OH	44004
Aspirus Wausau Hospital	333 Pine Ridge Boulevard		Wausau	WI	54401
Athens Regional Medical Center	1199 Prince Avenue		Athens	GA	30606
Atlanticare Regional Medical Center	2500 English Creek Avenue		Egg Habour Township	NJ	08234
Atrium Medical Center	One Medical Center		Franklin	OH	45005
Audrain Medical Center	620 E. Monroe Street		Mexico	MO	65265
Aultman Hospital	2600 Sixth Street SW		Canton	OH	44710

Aurora BayCare Medical Center	2845 Greenbrier Road		Green Bay	WI	54308
Aurora Medical Center – Kenosha	2900 W. Oklahoma Avenue		Milwaukee	WI	53132
Aurora Medical Center of Washington County	1032 E. Sumner Street		Hartford	WI	53027
Aurora Medical Center Oshkosh	855 N. Westhaven Street		Oshkosh	WI	53132
Aurora Memorial Hospital of Burlington	2900 W. Oklahoma Avenue		Milwaukee	WI	53215
Aurora Sheboygan Memorial Medical Center	2629 N. 7th Street		Sheboygan	WI	53083
Aurora Sinai Medical Center	945 N. 12th Street		Milwaukee	WI	53233
Aurora West Allis Memorial Hospital	2900 E. Oklahoma Avenue		Milwaulee	WI	53215
Auxilio Mutuo Hospital	Apartado 191227		San Juan	PR	00919-1227
Aventura Hospital and Medical Center	5631 Glencrest Boulevard		Tampa	FL	33625-1008
Avera Heart Hospital of South Dakota	4500 West 69th Street		Sioux Falls	SD	57108
Avera Sacred Heart Hospital	501 Summit		Yankton	SD	57078
Avera St. Luke's	305 South State Street		Aberdeen	SD	57401
Bakersfield Heart Hospital	3001 Sillect Avenue		Bakersfield	CA	93308

Ball Memorial Hospital	2401 University Avenue		Muncie	IN	47303
Baltimore Washington Medical Center	301 Hosptial Drive	2nd Floor Cardiac Cath Lab	Glen Burnie	MD	21061
Banner Boswell Medical Center	10401 W. Thunderbird Boulevard		Sun City	AZ	85351
Banner Desert Medical Center	Banner Desert Medical Center, Quality Management	1400 S. Dobson Road	Mesa	AZ	85202
Banner Estrella Medical Center	9201 W. Thomas Road		Phoenix	AZ	85037
Banner Good Samaritan Med Center	1111 East McDowell Road		Phoenix	AZ	85006-2612
Banner Heart Hospital	6750 E. Baywood Avenue		Mesa	AZ	85206
Banner Thunderbird Med Center	5555 W. Thunderbird Road		Glendale	AZ	85306
Baptist Health Medical Center	9601 Interstate 630 Exit 7		Little Rock	AR	72205-7299
Baptist Health Medical Center	3333 Springhill Drive		North Little Rock	AR	72117
Baptist Hospital	1000 W. Moreno Street		Pensacola	FL	32501
Baptist Hospital	4220 Harding Road		Nashville	TN	37202
Baptist Hospital East	4000 Kresge Way		Louisville	KY	40207
Baptist Hospital of Miami	8900 SW 88th Street		Miami	FL	33176
Baptist Hospital of Southeast Texas	PO Box 1591	3080 College Street	Beaumont	TX	77704
Baptist Hospital West	900 E. Oak Hill Avenue		Knoxville	TN	37917

Baptist Medical Center	800 Prudential Drive		Jacksonville	FL	32207
Baptist Medical Center	730 North Main Avenue	Suite 409	San Antonio	TX	78205
Baptist Memorial Hospital	6019 Walnut Grove Road		Memphis	TN	38120
Baptist Memorial Hospital-Desoto	7601 Southcrest Parkway		Southaven	MS	38671
Baptist Memorial Hospital-Union City	1201 Bishop Street		Union City	TN	38261
Baptist St. Anthony's Health Systems	1600 Wallace Boulevard		Amarillo	TX	79106
Barberton Citizens Hospital	155 5th Street NE		Barberton	OH	44203
Barnes Jewish Hospital/Washington University	#1 Barnes Jewish Hospital Plaza	SW Tower-Main. Mailstop 90-59-315	Saint Louis	MO	63110-9930
Barstow Community Hospital	555 South Seventh Street		Barstow	CA	92311
Bassett Healthcare-(Mary Imogene Bassett Hospital)	One Atwell Road		Cooperstown	NY	13326
Baton Rouge General Medical Center	3600 Florida Boulevard		Baton Rouge	LA	70806
Battle Creek Health System	300 North Avenue		Battle Creek	MI	49016

Baxter Regional Medical CenterAttn: A/P	624 Hospital Drive		Mountain Home	AR	72653
Bay Medical Center	615 North Bonita Avenue		Panama City	FL	32401
Bay Regional Medical Center	1900 Columbus Avenue		Bay City	MI	48708
Bayfront Medical Center	701 Sixth Street South		St. Petersburg	FL	33701
Bayhealth Medical Center(KGH)	640 S. State Street		Dover	DE	19901
Baylor All Saints Medical Center at Fort Worth	1400 8th Avenue		Fort Worth	TX	76104
Baylor Jack and Jane Hamilton Heart and Vascular Hospital	621 North Hall Street		Dallas	TX	75226
Baylor Medical Center at Garland	2300 Marie Curie Drive		Garland	TX	75042
Baylor Medical Center at Irving	1901 North MacArthur Boulevard		Irving	TX	75061
Baylor Regional Medical Center at Grapevine	1650 West College Street		Grapevine	TX	76051
Bayshore Medical Center	4000 Spencer Highway		Pasadena	TX	77504
Baystate Medical Center	759 Chestnut Street	Springfield 4 4558	Springfield	MA	01199
Beauregard Memorial Hospital	600 S. Pine Street		Deridder	LA	70634

Bellin Memorial Hospital	744 S. Webster Avenue	Cardiac Data Center 5th Floor	Green Bay	WI	54301
Benefis Healthcare	1101 26th Street South		Great Falls	MT	59405-5161
Berkshire Medical Center, Inc.	725 North Street		Pittsfield	MA	01201-4124
Bert Fish Medical Center	401 Palmetto Street		New Smyrna Beach	FL	32168
Bethesda Memorial Hospital	2815 S. Seacrest Blvd		Boynton Beach	FL	33435
Bethesda North Hospitals	375 Dixmyth Avenue		Cincinnati	OH	45220-2489
Beverly Hospital	85 Herrick Street		Beverly	MA	01915
Bexar County Hospital District d.b.a. University Health	4502 Medical Drive	Stop 34-1	San Antonio	TX	78229
Billings Clinic (formerly Deaconess)	2800 9th Avenue, North		Billings	MT	59101
Biloxi Regional Medical Center	150 Reynoir Street		Biloxi	MS	39531
Blake Medical Center	2020 59th Street West		Bradenton	FL	34209
Blanchard Valley Hospital	1900 South Main Street	HeartCare Center	Findlay	OH	45840
Blessing Hospital	1005 Broadway	PO Box 7005	Quincy	IL	62305-7005
Bloomington Hospital	601 W. Second Street	PO Box 1149	Bloomington	IN	47403

Boca Raton Community Hospital	12201 NW Second Place		Coral Springs	FL	33071
Bon Secours DePaul Medical Center	5801 Bremo Road	Suite 310, North Medical Office Building	Richmond	VA	23226
Bon Secours – Maryview Medical Center	5801 Bremo Road	Suite 310, North Medical Office Building	Richmond	VA	23226
Bon Secours-Memorial Regional Medical Center	5801 Bremo Road	Suite 310, North Medical Office Building	Richmond	VA	23226
Bon Secours St Francis Medical Center	5801 Bremo Road	Suite 310, North Medical Office Building	Richmond	VA	23226
Bon Secours St. Marys Hospital	5801 Bremo Road	Suite 310, North Medical Office Building	Richmond	VA	23226
Boone Hospital Center	1600 E. Broadway		Columbia	MO	65201-5897
Borgess Medical Center	1521 Gull Road		Kalamazoo	MI	49048
Boston Medical Center	One Boston Medical Place		Boston	MA	02118
Bothwell Regional Health Center	601 East 14th Street		Sedalia	MO	65301

Botsford Hospital	28050 Grand River Avenue		Farmington Hills	MI	48336
Boulder Community Hospital	1100 Balsam Avenue		Boulder	CO	80304
Brandon Regional Hospital	119 Oakfield Drive		Brandon	FL	33511
Bridgeport Hospital	267 Grant Street		Bridgeport	CT	06610
Brigham & Womens Hospital	75 Francis Street	L258A	Boston	MA	02115
Bronson Methodist Hospital	601 John Street		Kalamazoo	MI	49007-5348
Brookdale Hospital & Medical Center	1 Brookdale Plaza		Brooklyn	NY	11212
Brooklyn Hospital Center	121 DeKalb Avenue		Brooklyn	NY	11201
Brooksville Regional Hospital	17240 Cortez Boulevard		Brooksville	FL	34601
Brookwood Medical Center	2010 Brookwood Medical Center		Birmingham	AL	35209
Bryan LGH Medical Center	1600 South 48th Street		Lincoln	NE	68526
Bryn Mawr Hospital	Suite 557 Lankenau MOB East	100 Lancaster Avenue	Wynnewood	PA	19096
Buffalo General Hospital	3 Gates Circle		Buffalo	NY	14209
Cabell Huntington Hospital	1340 Hal Greer Boulevard		Huntington	WV	25701
California Pacific Medical Center	2330 Clay Street, Stern Building, Room #103	Stern Building, Room #103	San Francisco	CA	94115

CAMC Teays Valley Hospital	1400 Hospital Drive		Hurricane	WI	25526
Camden-Clark Memorial Hospital	800 Garfield Avenue		Parkersburg	WV	26101
Cape Canaveral Hospital	701 West Cocoa Beach Causeway		Cocoa Beach	FL	32931
Cape Cod Hospital	40 Quinlan Way		Hyannis	MA	02601
Cape Fear Valley Health System	303 Wagoner Drive		Fayetteville	NC	28303-4646
Capital Regional Medical Center	□arbara.scott3@ hcahealthcare.com		Tallahassee	FL	32308
Capital Regional Medical Center	1125 Madison Street (PO Box 1128)		Jefferson City	MO	65102-1128
Cardiovascular Center of Puerto Rico	PO Box 366528		San Juan	PR	00936-6528
Carilion Roanoke Memorial Hosp	Att: Cardiac Cath Lab	PO Box 13367	Roanoke	VA	24033-3367
Caritas Good Samaritan Medical Center	235 North Pearl Street		Brockton	MA	02301
Caritas Norwood Hospital	800 Washington Street		Norwood	MA	02062
Carle Foundation Hospital	611 W. Park Street		Urbana	IL	61801
Carolinas Hospital System	805 Pamplico Highway		Florence	SC	29505
Carolinas Medical Center	1001 Blythe Boulevard		Charlotte	NC	28227
Carolinas Medical Center – Mercy	2001 Vail Avenue	Cath Lab	Charlotte	NC	28207

Carondelet Heart Institute at St. Joseph Medical Center	1000 Carondelet Drive		Kansas City	MO	64114
Carroll Hospital Center	200 Memorial Avenue		Westminster	MD	21157
Carson Tahoe Regional Medical Center	1600 Medical Parkway		Carson City	NV	89706
Cartersville Medical Center	PO Box 20008		Cartersville	GA	30120
Casa Grande Regional Medical Center	1800 E. Florence Boulevard		Casa Grande	AZ	85222
Castleview Hospital	300 North Hospital Drive		Price	UT	84501
Catawba Valley Medical Center	810 Fairgrove Church Road		Hickory	NC	28602
Catholic Medical Center	100 McGregor Street	Level C Room 248	Manchester	NH	03102-3770
Cayuga Medical Center at Ithaca	101 Dates Drive		Ithaca	NY	14850
Cedars-Sinai Health Systems	8700 Beverly Boulevard	MGB 901	Los Angeles	CA	90048
Centennial Hills Hospital Medical Center	6900 N. Durango Drive		Las Vegas	NV	89149-4409
Centennial Medical Center	12505 Lebanon Boulevard		Frisco	TX	75035
Centennial Medical Center	2300 Patterson Street		Nashville	TN	37203

Centerpoint Medical Center	19600 E. 39th Street		Independence	MO	64057
Centinela Hospital Medical Center	555 E. Hardy Street		Inglewood	CA	90301
Central Baptist Hospital	1800 Nicholasville Road Suite 401		Lexington	KY	40503
Central DuPage Hospital	25 N. Winfield Road		Winfield	IL	60190
Central Florida Regional Hospital	1401W. Seminole Boulevard		Sanford	FL	32771
Central Maine Medical Center	CMHVI 60 High Street		Lewiston	ME	04240
Central Minnesota Heart Center at St. Cloud Hospital	1406 Sixth Avenue North		St. Cloud	MN	56303
Central Washington Hospital	1201 South Miller Street		Wenatchee	WA	98801
Charleston Area Medical Center	501 Morris Street		Charleston	WV	25301
Charlotte Regional Medical Center	809 East Marion Avenue		Punta Gorda	FL	33950
Charlton Memorial Hospital	363 Highland Avenue		Fall River	MA	02720-3700
Chattanooga-Hamilton County Hospital Authority/ER	975 E. Third Street		Chattanooga	TN	37403
Chesapeake General Hospital	736 Battlefield Boulevard North		Chesapeake	VA	23320

Cheshire Medical Center	580 Court Street		Keene	NH	03431
Chester County Hospital	701 E. Marshall Street		West Chester	PA	19380
Cheyenne Regional Medical Center	Cheyenne Regional Medical Center	214 E. 23rd Street	Cheyenne	WY	82001
Christian Hospital	11133 Dunn Road		St Louis	MO	63136
Christiana Care Health System	4755 Ogletown-Stanton Road		Newark	DE	19718
Christus Hospital-St. Mary	3600 Gates Boulevard		Port Arthur	TX	77642
Christus Saint Elizabeth Hospital	2830 Calder Street		Beaumont	TX	77702
Christus Santa Rosa Hospital	333 N. Santa Rosa Street		San Antonio	TX	78207
Christus Spohn Hospital Corpus Christi – Shoreline	600 Elizabeth Street		Corpus Christi	TX	78404
Christus St. Catherine	701 S. Fry Road		Katy	TX	77450
Christus St. John Hospital	18300 St. John Drive	Cath Lab	Nassau Bay	TX	77058
Christus St. Michael Health System	2600 St. Michael Drive		Texarkana	TX	75503
Christus St. Patrick Hospital	524 South Ryan Street		Lake Charles	LA	70602-3401
Christus – Schumpert Highland Hospital	One St. Mary Place		Shreveport	LA	71101
Christus – St. Frances Cabrini Hospital	3330 Masonic Drive	Cath Lab	Alexandria	LA	71301

Citrus Memorial Health System	502 W. Highland Boulevard		Inverness	FL	34452
CJW Medical Center	7101 Jahnke Road		Richmond	VA	23225-4044
Clarian Health Partners-Methodist Hospital campus	1701 N. Senate Boulevard	Room A1082	Indianapolis	IN	46202
Clarian North Medical Center	11725 Illinois Street B-178		Carmel	IN	46032
Clark Memorial Hospital	1220 Missouri Avenue		Jeffersonville	IN	47130
Clear Lake Regional Medical Center	500 Medical Center Boulevard		Webster	TX	77598
Cleveland Clinic Florida	3100 Weston Road		Weston	FL	33331
Cleveland Clinic Foundation	9500 Euclid Avenue		Cleveland	OH	44195
Coliseum Medical Centers	350 Hospital Drive		Macon	GA	31217
College Station Medical Center	1604 Rock Prairie Road		College Station	TX	77845
Columbia Hospital	4425 North Port Washington Road		Glendale	WI	53212
Columbia Regional Hospital	404 Keene Street		Columbia	MO	65201
Columbia St. Mary's Hospital Ozaukee	13111 N. Port Washington Road		Mequon	WI	53097
Columbus Cardiovascular Care, PLLC	2520 5th Street North PO Box 1307		Columbus	MS	39703

Columbus Regional Hospital	2400 17th Street		Columbus	IN	47201
Comanche County Memorial Hospital	3401 W. Gore Boulevard	PO Box 129	Lawton	OK	73505
Community Health Partners	3700 Kolbe Road		Lorain	OH	44053
Community Hospital	5637 Marine Parkway		New Port Richey	FL	34652
Community Hospital	The Community Hospital	901 MacArthur Boulevard	Munster	IN	46321
Community Hospital and Wellness Center	433 West High Street		Bryan	OH	43506
Community Hospital East	Cardiovascular Services	1500 North Ritter Avenue	Indianapolis	IN	46219
Community Hospital of the Monterey Peninsula	PO Box HH		Monterey	CA	93942-1085
Community Hospital South	1500 N. Ritter Avenue		Indianapolis	IN	46219-3027
Community Medical Center	99 Highway 37 West		Toms River	NJ	08775
Community Medical Center	1800 Mulberry Street		Scranton	PA	18510
Community Memorial Hospital	147 N. Brent Street		Ventura	CA	93003

Community Memorial Hospital	W180 N8085 Town Hall Road		Menomonee Falls	WI	53052
CommunityMercy AKA Springfield Regional Medical Center	2615 E. High Street		Springfield	OH	45525
Concord Hospital	250 Pleasant Street		Concord	NH	03301
Conroe Regional Medical Center	504 Medical Center Boulevard		Conroe	TX	77304
Covenant Heart Institute	3615 19th Street		Lubbock	TX	79410
Conway Regional Medical Center	2302 College Avenue		Conway	AR	72034-6226
Cooley Dickinson Hospital	30 Locust Street		Northampton	MA	01060
Cooper University Hospital	One Cooper Plaza	D386B	Camden	NJ	08103
Corpus Christi Medical Center	7101 SPID		Corpus Christi	TX	78412
Covenant Healthcare	1447 N. Harrison Street		Saginaw	MI	48602
Covenant Medical Center	3421 West Ninth Street		Waterloo	IA	50702
Cox Medical Center South	3801 S. National Avenue		Springfield	MO	65807
Craven Regional Medical Center	2000 Neuse Boulevard	PO Box 12157	New Bern	NC	28560
Creighton University Medical Center	601 N. 30th Street		Omaha	NE	68131

Crestwood Medical CenterTriad Hospitals, Inc.	One Hospital Drive		Huntsville	AL	35801-3495
Crittenton Hospital Medical Center	1101 W. University Drive		Rochester	MI	48307-1831
Crouse Hospital	736 Irving Avenue		Syracuse	NY	13210
Crozer Chester Medical Center	1 Medical Center Boulevard		Chester	PA	19013-3995
Cumberland Cardiology	5000 US Route 321		Prestonsburg	KY	41653
Cypress Fairbanks Medical Center	10655 Steepletop Drive		Houston	TX	77065
Dallas Regional Medical Center	1011 N. Galloway Avenue		Mesquite	TX	75149
Dameron Hospital	525 W. Acacia Street		Stockton	CA	95203
Danbury Hospital	24 Hospital Avenue	Cardiology 2 South	Danbury	CT	06810
Dauterive Hospital	600 N. Lewis Street		New Iberia	LA	70563
Davis Hospital	1600 West Antelope Drive		Layton	UT	84041
DCH Regional Medical Center	809 University Boulevard E		Tuscaloosa	AL	35401-2029
Deaconess Hospital	5501 N. Portland Avenue		Oklahoma City	OK	73112
Deaconess Hospital	600 Mary Street		Evansville	IN	47747
Deaconess Medical Center	W. 800 Fifth Avenue		Spokane	WA	99204
Deborah Heart & Lung Center	200 Trenton Road		Browns Mills	NJ	08015
Decatur General	1201 7th Street		Decatur	AL	35601

Hospital					
Dekalb Medical Center	2701 N. Decatur Road		Decatur	GA	30033
Dekalb Regional Medical Center	200 Medical Center Drive		Fort Payne	AL	35968
Del Sol Medical Center	10301 Gateway West		El Pasoq	TX	79925
Delray Medical Center	5352 Linton Boulevard		Delray Beach	FL	33484
Denton Regional Medical Center	3535 South I-35E		Denton	TX	76205
Denver Health Medical Center	777 Bannock Street		Denver	CO	80204
DePaul Health Center	12303 DePaul Drive		Bridgeton	MO	63044
Des Peres Hospital	2345 Dougherty Ferry Road		St. Louis	MO	63122
Desert Regional Medical Center	1150 N. Indian Canyon		Palm Springs	CA	92262
DeTar Hospital	506 E. San Antonio Street		Victoria	TX	77902
Dixie Regional Medical Center	1380 E. Medical Drive		St. George	UT	84790
Doctors Hospital	5000 University Drive		Miami	FL	33146
Doctors Hospital	5100 West Broad Street		Columbus	OH	43228
Doctors Hospital	9440 Poppy Drive		Dallas	TX	75218
Doctors Hospital at Renaissance	5501 S. McColl Road		Edinburg	TX	78539

Doctors Hospital – Augusta	3651 Wheeler Drive		Augusta	GA	30909
Doctors Hospital of Sarasota	5731 Bee Ridge Road		Sarasota	FL	34233
Doctors Medical Center	2000 Vale Road		San Pablo	CA	94806
Doctors Medical Center	1441 Florida Avenue		Modesto	CA	95350
Downey Regional Medical Center	11500 Brookshire Avenue		Downey	CA	90241
Doylestown Hospital	595 West State Street		Doylestown	PA	18901
Dr. P. Phillips Hospital	1414 Kuhl Avenue		Orlando	FL	32806
DuBois Regional Medical Center	100 Hospital Avenue		DuBois	PA	15801
Dunn Memorial Hospital	1600 23rd Street		Bedford	ID	47421
Durham Regional Hospital	3634 Roxboro Road		Durham	NC	27704
East Alabama Medical Center	2000 Pepperall Parkway		Opelika	AL	36830
East Georgia Regional Medical Center	1499 Fair Road (PO Box 1048)		Statesboro	GA	30459
East Jefferson General Hospital	4200 Houma Boulevard	Quality Management Department	Metairie	LA	70006
East Texas Medical Center	1000 S. Beckham Avenue		Tyler	TX	75711
Eastern Idaho RMC	3100 Channing Way		Idaho Falls	ID	83404

Eastern Maine Medical Center	489 State Street	PO Box 404	Bangor	ME	04402-0404
Easton Hospital (Northampton Hospital Corp.)	250 South 21st Street		Easton	PA	18042
Edward Hospital	120 Spalding Drive #205		Naperville	IL	60540
Eisenhower Medical Center	39000 Bob Hope Drive		Rancho Mirage	CA	92270
El Camino Hospital	2500 Grant Road		Mountain View	CA	94040
Eliza Coffee Memorial Hospital	603 West College Street		Florence	AL	35630
Elkhart General Hospital	600 East Boulevard	3 South Suites	Elkhart	IN	46514-2499
Ellis Hospital	1101 Nott Street		Schenectady	NY	12308
Elmhurst Hospital Center	79-01 Broadway	Dept of Cardiology, Suite D-54	Elmhurst	NY	11373
Elmhurst Memorial Hospital Marquardt Memorial Lib	200 Berteau Avenue		Elmhurst	IL	60126
EMH Regional Medical Center	630 East River Street		Elyria	OH	44035
Emory Dunwoody Medical Center	4575 North Shallowford Road		Atlanta	GA	30338
Emory Eastside Medical Center	1700 Medical Way		Snellville	GA	30078
Emory Johns Creek	6325 Hospital Parkway		Johns Creek	GA	30097
Englewood Community Hospital	700 Medical Boulevard		Englewood	FL	34223

(HCA)					
Englewood Hospital & Medical Center	350 Engle Street		Englewood	NJ	07631
Enloe Medical Center	1600 Esplanade		Chico	CA	95926
Erie County Medical Center	462 Grider Street		Buffalo	NY	14215
Excela Health Westmoreland Hospital	532 West Pittsburgh Street		Greensburg	PA	15601
Exempla Good Samaritan Medical Center	2420 W. 26th Avenue Building D Suite 100		Denver	CO	80211
Exempla Lutheran Medical Center	2420 W. 26th Avenue Building D Suite 140		Denver	CO	80211
Exempla Saint Joseph Hospital	2420 W. 26th Avenue Building D Suite 140		Denver	CO	80211
Exeter Hospital	5 Alumni Drive		Exeter	NH	03833
F.E. Lajam, MD PC	140-04 58th Road		Flushing	NY	11355
Fairfield Cardiac Cath Labs	3000 Mack Road	Suite 200	Fairfield	OH	45014
Fairfield Medical Center	401 N. Ewing Street		Lancaster	OH	43130
Fairview Hospital	18101 Lorain Road #329		Cleveland	OH	44111
Fairview Park Hospital	PO Box 1408		Dublin	GA	31021

Fairview Southdale Hospital	6401 France Avenue South		Edina	MN	55435
Faith Regional Health Services	2700 W. Norfolk Avenue		Norfolk	NE	68701
Fawcett Memorial Hospital	21298 Olean Boulevard		Port Charlotte	FL	33949-4960
Faxton – St. Luke's Campus	1656 Champlin Avenue		New Hartford	NY	13413
FirstHealth Moore Regional Hospital	155 Memorial Drive		Pinehurst	NC	28374
Fisher-Titus Medical Center	272 Benedict Avenue		Norwalk	OH	44857
Flagstaff Medical Center	1200 N. Beaver Street		Flagstaff	AZ	86001-3198
Fletcher Allen Health Care	111 Colchester Avenue		Burlington	VT	05401
Florida Hospital	601 East Rollins Street	Box 99	Orlando	FL	32803
Florida Hospital Deland	701 West Plymouth Avenue		Deland	FL	32720
Florida Hospital Fish Memorial	1055 Saxon Boulevard		Orange City	FL	32763
Florida Hospital Ormond Memorial	875 Sterthaus Avenue		Ormond Beach	FL	32174
Florida Hospital Waterman, Inc.	1000 Waterman Way		Tavares	FL	32778
Flowers Hospital	4370 West Main Street		Dothan	AL	36305
Floyd Medical Center	304 Turner McCall Boulevard		Rome	GA	30165

Floyd Memorial Hospital	1850 State Street		New Albany	IN	47150
Forrest General Hospital	6051 Highway 49 South		Hattiesburg	MS	39404-6389
Fort Sanders Regional Medical Center	1901 Clinch Avenue		Knoxville	TN	37916-2307
Fort Walton Beach Medical Center	1000 Mar Walt Drive		Fort Walton Beach	FL	32547
Forum Health – Northside Medical Center	500 Gypsy Lane		Youngstown	OH	44501-0240
Fountain Valley Regional Hosp	17100 Euclid Street		Fountain Valley	CA	92708-4004
Frankfort Regional Medical Center	299 Kings Daughter Drive		Frankfort	KY	40601
Franklin Square Hospital	9000 Franklin Square Drive		Baltimore	MD	21237
Frederick Memorial Hospital	400 W. Seventh Street		Frederick	MD	21710
Freeman Hospital	1102 W. 32nd Street	1102 W. 32nd Street	Joplin	MO	64804
Fremont Area Medical Center	450 East 23rd Street		Fremont	NE	68025
Fresno Community Hospital and Medical Center	2823 Fresno Street		Fresno	CA	93721
Fresno Heart Hospital	15 East Audubon Drive		Fresno	CA	93720
Froedtert Hospital	9200 W. Wisconsin Avenue		Milwaukee	WI	53226
Frye Regional Medical Center	420 N. Center Street		Hickory	NC	28601

Gadsden Regional Medical Center	1007 Goodyear Avenue		Gadsden	AL	35903
Galichia Heart Hospital	2610 N. Woodlawn Boulevard		Wichita	KS	67220
Garden Grove Hospital	12601 Garden Grove Boulevard		Garden Grove	CA	92843
Gateway Medical CenterGateway Health System	651 Dunlap Lane		Clarksville	TN	37043
Gateway Regional Medical Center	2100 Madison Avenue		Granite City	IL	62040
Geisinger Medical Center	100 North Academy Avenue		Danville	PA	17822-2160
Geisinger Wyoming Valley Medical Center	100 North Academy Avenue		Danville	PA	17822-2160
Genesis Medical Center	1236 East Rusholme Street	Suite 190	Davenport	IA	52803-2459
Genesys Regional Medical Center	One Genesys Parkway		Grand Blanc	MI	48439
Georgetown University Hospital	3800 Reservoir Road NW		Washington	DC	20007
Gerald Champion Reginal Medical	2669 North Scenic Drive		Alamogordo	NM	88310
Glenbrook Hospital	2100 Pfingsten Road		Evanston	IL	60026
Glendale Adventist Medical Center	1509 Wilson Terrace		Glendale	CA	91206
Glens Falls Hospital	100 Park Street		Glens Falls	NY	12801
Good Samaritan Heart Center	520 South 7th Street		Vincennes	IN	47591

Good Samaritan Hospital and Health Center	2222 Philadelphia Drive		Dayton	OH	45406
Good Samaritan Hospital	2425 Samaritan Drive	2425 Samaritan Drive	San Jose	CA	95124
Good Samaritan Hospital	605 N. 12th Street		Mount Vernon	IL	62864
Good Samaritan Hospital	3815 Highland Avenue		Downers Grove	IL	60515
Good Samaritan Hospital	375 Dixmyth Avenue		Cincinnati	OH	45220-2489
Good Samaritan Hospital	1225 Wilshire Boulevard		Los Angelos	CA	90017
Good Samaritan Hospital	10 East 31st Street		Kearney	NE	68848
Good Samaritan Hospital	255 Lafayette Avenue		Suffern	NY	10901
Good Samaritan Hospital Cardiology	1000 Montauk Highway		West Islip	NY	11795
Good Samaritan Medical Center	1309 North Flagler Drive		West Palm Beach	FL	33401
Good Samaritan Regional Medical Center	3600 NW Samaritan Drive		Corvallis	OR	97330
Goshen General Hospital	200 High Park Avenue		Goshen	IN	46526
Governor Juan F. Luis Hospital & Medical Center	4007 Estate Diamond Ruby		Christiansted	VI	00820

Graduate Hospital	1800 Lombard Street		Philadelphia	PA	19146
Grady Memorial Hospital	561 West Central Avenue		Delaware	OH	43015-1489
Grand Strand Regional Medical Center	809 82nd Parkway		Myrtle Beach	SC	29572
Grandview Medical Center	405 Grand Avenue		Dayton	OH	45405
Grant Medical Center	111 S. Grant Avenue		Columbus	OH	43215
Gratiot Medical Center	4401 Campus Ridge Drive		Midland	MI	48670
Great Plains Regional Medical Center	Box 2339		Elk City	OK	73648
Greater Baltimore Medical Center	GBMC – Cardiac Cath Lab	6701 N. Charles Street	Towson	MD	21204
Greene Memorial Hospital	1141 N. Monroe Drive		Xenia	OH	45385
Greenview Regional Hospital	1801 Ashley Circle		Bowling Green	KY	42104
Greenville Memorial Hospital	701 Grove Road		Greenville	SC	29605
Greenwich Hospital	5 Perryridge Road		Greenwich	CT	06830
Gulf Coast Medical Center	449 W. 23rd Street		Panama City	FL	32406-5309
Gulf Coast Medical Center (formerly Southwest Regional)	636 Del Prado Boulevard Suite 104		Cape Coral	FL	33990

Gundersen Lutheran Medical Center, Inc.	1900 South Avenue	H06-004	LaCrosse	WI	54601
Gwinnett Hospital System	1000 Medical Center Boulevard		Lawrenceville	GA	30045
Hackensack University Medical Center	30 Prospect Avenue		Hackensack	NJ	07601
Hahnemann University Hospital	230 N. Broad Street		Philadelphia	PA	19102
Halifax Medical Center	303 N. Clyde Morris Boulevard		Daytona Beach	FL	32114-2732
Halifax Regional Hospital	2204 Wilborn Avenue		South Boston	VA	24592
Hamilton Medical Center	1200 Memorial Drive		Dalton	GA	30720
Hamot Medical Center	201 State Street		Erie	PA	16550
Hannibal Regional Hospital	6000 Hospital Drive		Hannibal	MO	63401
Harbor Hospital Center	3001 S. Hanover Street		Baltimore	MD	21225
Hardin Memorial Hospital	913 N Dixie Avenue		Elizabethtown	KY	42701
Harlingen Medical Center	5501 South Expressway 77		Harlingen	TX	78550
Harper University Hospital	3990 John R. Street		Detroit	MI	48201
Harris County Hospitals	1504 Taub Loop		Houston	TX	77030

Harris Methodist Fort Worth	1301 Pennsylvania Avenue		Fort Worth	TX	76104
Harris Methodist HEB	1600 Hospital Parkway		Bedford	TX	76022
Harrison Medical Center	2520 Cherry Avenue		Bremerton	WA	98310
Hartford Hospital	80 Seymour Street		Hartford	CT	06102-8000
Harton Regional Medical Center	1801 N. Jackson Street		Tullahoma	TN	37388
Hawaii Medical Center East, LLC	2230 Liliha Street		Honolulu	HI	96817
Hawaii Medical Center West	91-2141 Fort Weaver Road		Ewa Beach	HI	96706
Hays Medical Center	2220 Canterbury Road		Hays	KS	67601
Health Care Authority for Baptist Health	2105 East South Boulevard		Montgomery	AL	36116
Heart Center of Indiana	8333 Nabb Road Suite 330	Suite 330	Indianapolis	IN	46290
Heart Hospital of Austin	3801 N. Lamar Boulevard		Austin	TX	78756
Heart Hospital of Lafayette	1105 Kaliste Saloom Road		Lafayette	LA	70508
Heart Hospital of New Mexico	504 Elm Street NE		Albuqerque	NM	87102
Heart of Florida Regional Medical Center	40100 Highway 27		Davenport	FL	33837

Heart of Lancaster Regional Medical Center	250 College Avenue		Lancaster	PA	17604
Heartland Regional Medical Center	3333 W. Deyoung Street		Marion	IL	62959
Heartland Regional Medical Center	The Heart Center – Cardiac Cath Lab	5325 Faraon Street	Saint Joseph	MO	64506-3373
Helen Ellis Memorial	1395 South Pinella Avenue		Tarpon Springs	FL	34689
Hemet Valley Medical Center	1117 E. Devonshire Avenue		Hemet	CA	92543
Hendersonville Medical Center	355 New Shackle Island Road		Hendersonville	TN	37075
Hendrick Medical Center	1900 Pine Street		Abilene	TX	79601
Hennepin County Medical Center	701 Park Avenue		Minneapolis	MN	55415-1829
Henrico Doctors Hospital	1602 Skipwith Road	Cardiac Cath Lab	Richmond	VA	23229
Henry Ford Hospital	2799 W. Grand Boulevard	K-14	Detroit	MI	48202
Henry Ford Macomb	15855 Nineteen Mile Road		Clinton Township	MI	48038
Henry Ford Macomb-Warren	13355 East Ten Mile Road		Warren	MI	48089
Henry Mayo Newhall Memorial Hospital	23845 McBean Parkway		Valencia	CA	91350
Henry Medical Center, Inc.	1133 Eagles Landing Parkway		Stockbridge	GA	30281
Hialeah Hospital	651 East 25th Street		Hialeah	FL	33013

High Point Regional Hospital	601 N. Elm Street		High Point	NC	27261
Highland Park Hospital	718 Glenview Avenue		Highland Park	IL	60035
Hillcrest Baptist Medical Center	3000 Herring Avenue		Waco	TX	76708
Hillcrest Hospital	6780 Mayfield Road		Mayfield Heights	OH	44124
Hillcrest Medical Center	1120 S. Utica Avenue	3 West	Tulsa	OK	74104
Hilton Head Regional Medical Center	25 Hospital Center Boulevard		Hilton Head	SC	29925
HMA-Physician Management Region 25 Disb. Acct. (Physician's Regional)	6101 Pine Ridge Road		Naples	FL	34119
Hoag Memorial Hospital Presbyterian	One Hoag Drive		Newport Beach	CA	92658
Holland Community Hospital	602 Michigan Avenue		Holland	MI	49423
Hollywood Medical Center	3600 Washington Street		Hollywood	FL	33021
Holmes Regional Medical Center	1355 South Hickory Street Suite 203		Melbourne	FL	32901
Holy Cross Hospital	4725 N. Federal Highway		FT. Lauderdale	FL	33308
Holy Cross Hospital Medical Library	1500 Forest Glen Road		Silver Spring	MD	20910

Holy Spirit Health System	503 N 21st Street	Heart Center Admin.	Camp Hill	PA	17011-2204
Holzer Cardiovascular Institute	90 Jackson Pike		Gallipolis	OH	45631
Hopkins County Memorial Hospital	115 Airport Road		Sulphur Springs	TX	75482
Hospital of St. Raphael	Cardiac Cath Lab, 1450 Chapel Street		New Haven	CT	06511
Hospital of the University of Pennsylvania	9011 E. Gates 3400 Spruce Street		Philadelphia	PA	19104
Houston Northwest Medical Center Accounts Payable	710 FM 1960 Road West		Houston	TX	77090
Howard Regional Health System	3500 South LaFountain Street		Kokomo	IN	46904-9011
Huguley Memorial Medical Center	11801 South Freeway		Ft. Worth	TX	76115
Huntington Hospital	100 W. California Boulevard		Pasadena	CA	91109
Huntsville Hospital	101 Sivley Road		Huntsville	AL	35801
Iberia Medical Center	2315 East Main Street		New Iberia	LA	70560
Immanuel-St. Joseph's Hospital	1025 Marsh Street		Mankato	MN	56001
Indian River Medical Center	1000 36th Street		Vero Beach	FL	32960
Indiana Heart Institute	8333 Naab Rd	Suite 330	Indianapolis	IN	46260

Indiana Regional Medical Center Cardiology Department	835 Hospital Road		Indiana	PA	15701
Ingalls Hospital	One Ingalls Drive		Harvey	IL	60426
Ingham Regional Medical Center	401 W. Greenlawn Avenue		Lansing	MI	48910
Innovis Health	3000 32nd Avenue SW		Fargo	ND	58104
Inova Alexandria Hospital	3289 Woodburn Road		Falls Church	VA	22042
Inova Fairfax Hospital/Inova Heart & Vascular Institute	3300 Gallows Road		Falls Church	VA	22042
Inova Loudoun Hospital	3289 Woodburn Road	Suite 235	Falls Church	VA	22042
Integris Baptist Medical Center	3433 NW 56th Street, Suite 805		Oklahoma City	OK	73112
Integris Southwest Medical Center	4401 South Western Avenue		Oklahoma City	OK	73109
Intermountain Medical Center	PO Box 577000		Murray	UT	84157-7000
Iowa Lutheran Hospital	700 E. University Avenue		Des Moines	IA	50316
Iowa Methodist Medical Center	700 E. University Avenue		Des Moines	IA	50316
Jackson Hospital and Clinic	1725 Pine Street		Montgomery	AL	36106

Jackson Madison General Hospital	620 Skyline Drive		Jackson	TN	38301
Jane Phillips Memorial Medical Center	3500 Frank Phillips Boulevard		Bartlesville	OK	74006
Jeanes Hospital	7600 Central Avenue		Philadelphia	PA	19111
Jefferson Memorial Hospital	PO BOX 350		Crystal City	MO	63019
Jefferson Regional Medical Center	1600 West 40th Avenue		Pine Bluff	AR	71603
Jefferson Regional Medical Center	PO Box 18119 565 Coal Valley Road		Pittsburgh	PA	15236-0119
Jennie Edmundson Memorial Hospital	933 E. Pierce Street		Council Bluffs	IA	51503
Jewish Hospital	4777 East Galbraith Road		Cincinnati	OH	45236
Jewish Hospital	200 Abraham Flexner Way		Louisville	KY	40202
JFK Medical Center	5631 Glencrest Boulevard		Tampa	FL	33625-1008
John C. Lincoln Hospital – Deer Valley	19829 N. 27th Ave.		Phoenix	AZ	85027-4002
John C. Lincoln Hospital – North Mountain	250 E. Dunlap Avenue		Phoenix	AZ	85020-2871
John F. Kennedy Memorial Hospital	47-111 Monroe Street		Indio	CA	92201

John Muir Medical Center – Concord Campus	1601 Ygnacio Valley Road		Walnut Creek	CA	94550
John Muir – Walnut Creek	1601 Ygnacio Valley Road		Walnut Creek	CA	94550
Johns Hopkins Bayview Medical Center	4940 Eastern Avenue		Baltimore	MD	21224
Johns Hopkins Hospital	600 N. Wolfe Street		Baltimore	MD	21287
Johnson City Medical Center Hosp	400 N State of Franklin		Johnson City	TN	37604
Jordan Valley Hospital	3580 W. 9000 S		West Jordan	UT	84088
Kadlec Medical Center	888 Swift Boulevard		Richland	WA	99352
Kaiser Foundation Hospital	1526 Edgemont Street		Los Angeles	CA	90027
Kaiser Foundation Hospital	6600 Bruceville Road		Sacramento	CA	95823
Kaiser Permanente – Moanalua Medical Center	3288 Moanalua Road		Honolulu	HI	96819
Kaiser Permanente – Panorama City	13652 Cantara Street		Panoram City	CA	91402
Kaiser Permanente – San Diego Medical Center	4647 Zion Avenue		San Diego	CA	92120

Kaiser Permanente Medical Center	2350 Geary Boulevard	1st Floor – CV Surgery	San Francisco	CA	94115
Kaiser Permanente Medical Center – Santa Clara	700 Lawrence Expressway	Department 212	Santa Clara	CA	95051
Kaiser Sunnyside Medical Center	10180 SE Sunnyside Road		Clackamas	OR	97015
Kansas Heart Hospital	3601 N Webb Road		Wichita	KS	67226
Kansas Heart Hospital	3601 N Webb Road		Wichita	KS	67226
Kansas Medical Center	1124 West 21st Street		Andover	KS	67002
Kansas University Hospital Authority	3901 Rainbow Boulevard		Kansas City	KS	66160
Kapi'olani Medical Center Pali Momi	98-1079 Moanalua Road		Aiea	HI	96701
Katherine Shaw Bethea Hospital	403 E. First Street		Dixon	IL	61021
Kaweah Delta Hospital District	Kaweah Delta Hospital District	400 W. Mineral King Avenue	Visalia	CA	93291
Kendall Regional Medical Center	5631 Glencrest Boulevard		Tampa	FL	33625-1008
Kershaw County Medical Center	1315 Roberts Street		Camden	SC	29020
Kettering Medical Center	3535 Southern Boulevard		Kettering	OH	45429
Kingman Regional Medical Center	3269 Stockton Hill Road		Kingman	AZ	86401
Kings Daughters Hospital	1901 Southwest H.K. Dodgen Loop		Temple	TX	76502

Kings Daughters Medical Center	2201 Lexington Avenue		Ashland	KY	41101
Kingwood Medical Center	22999 Highway 59 N		Kingwood	TX	77339
Kishwaukee Community Hospital	One Kish Hospital Drive		Dekalb	IL	60115
Knox Community Hospital	1330 Coshocton Road		Mount Vernon	OH	43050
Kootenai Medical Center	2003 Lincoln Way		Coeur d' Alene	ID	83814
Lafayette General Medical Center	1214 Coolidge Avenue		Lafayette	LA	70505
Lahey Clinic	41 Mall Road		Burlington	MA	01805
Lake Charles Memorial Hospital	1701 Oak Park Boulevard		Lake Charles	LA	70601
Lake City Medical Center	340 NW Commerce Boulevard		Lake City	FL	32055
Lake Hospital System	36000 Euclid Avenue		Willoughby	OH	44094
Lake Pointe Medical Center	6800 Scenic Drive		Rowlett	TX	75088
Lake Regional Health System	54 Hospital Drive		Osage Beach	MO	65065
Lakeland Hospital	1234 Napier Avenue		Saint Joseph	MI	49085-2112
Lakeland Regional Medical Center	1324 Lakeland Hills Boulevard		Lakeland	FL	33804
Lakeside Hospital	6901 N. 72nd Street Suite 3300		Omaha	NE	68122
Lakeview Regional Medical Center	95 East Fairway Drive		Covington	LA	70433-7500

Lakeway Regional Hospital	726 McFarland Street		Morristown	TN	37814
Lakewood Hospital	14519 Detroit Avenue		Lakewood	OH	44107
Lakewood Ranch Medical Center	8330 Lakewood Ranch Boulevard		Bradenton	FL	34202
Lakewood Regional Medical Center	3700 East South Street		Lakewood	CA	90712
Lancaster Community Hosp	43830 North 10th Sreet West		Lancaster	CA	93534
Lancaster General Hospital	555 N. Duke Street PO Box 3555		Lancaster	PA	17604-3555
Lancaster Regional Medical Center	250 College Avenue		Lancaster	PA	17604
Landmark Medical Center	115 Cass Avenue		Woonsocket	RI	02895
Lane Regional Medical Center	6300 Main Street		Zachary	LA	70791
Lankenau Hospital	Suite 557 Lankenau MOB East	100 Lancaster Avenue	Wynnewood	PA	19096
La Porte Hospital	1007 Lincolnway		La Porte	IN	46352
Laredo Medical Center	1720 Bustamante Street		Laredo	TX	78044
Largo Medical Center	201 14th Street SW		Largo	FL	33770
Las Colinas Medical Center	6800 North MacArthur Boulevard		Irving	TX	75039
Las Palmas Medical Center	1801 N. Oregon Street		El Paso	TX	79902
Lawnwood Medical Center	1700 S. 23rd Street		Fort Pierce	FL	34950

Lawrence & Memorial Hospital	365 Montauk Avenue		New London	CT	06375
Lawrence Hospital	55 Palmer Avenue		Broxville	NY	10708-3491
Lee Memorial Health System-Cape Coral Hospital	276 Cleveland Avenue		Fort Myers	FL	33901
Lee Memorial Health System-Health Park Med Center	276 Cleveland Avenue		Fort Myers	FL	33901
Lee's Summit Medical Center	2100 SE Blue Parkway		Lee's Summit	MO	64063
Leesburg Regional Medical Center	600 East Dixie Avenue		Leesburg	FL	34748
Legacy Emanuel Hospital	1919 NW Lovejoy Street		Portland	OR	97209
Legacy Good Samaritan Hospital	1919 NW Lovejoy Street		Portland	OR	97209
Legacy Meridian Park Hospital	1919 NW Lovejoy Street		Portland	OR	97209
Legacy Salmon Creek Hospital	1919 NW Lovejoy Street		Portland	OR	97209
Lehigh Regional Medical Center	1500 Lee Boulevard		Lehigh Acres	FL	33963
Lehigh Valley Hospital	1200 S. Cedar Crest Boulevard	Jaindl Pavilion 1st Floor	Allentown	PA	18103
Lehigh Valley Hospital – Muhlenberg	2545 Schoenersville Road	Invasive Cardiology 3rd Floor	Bethlehem	PA	18017-7330

Lewis Gale Medical Center	1900 Electric Road		Salem	VA	24153
Lexington Medical Center	2720 Sunset Boulevard		West Columbia	SC	29169
Liberty Hospital	2525 Glenn Hendren Drive		Liberty	MO	64068
Lima Memorial Hospital	1001 Bellefontaine Avenue		Lima	OH	45804
Little Company of Mary Hospital	4101 Torrance Boulevard		Torrance	CA	90503
Little Company of Mary Hospital	2800 W. 95th Street		Evergreen Park	IL	60805
Logan General Hospital, LLC	20 Hospital Drive		Logan	WV	25601
Loma Linda University Medical Center	11234 Anderson Street Room 2431		Loma Linda	CA	92354
Long Beach Memorial Medical Center	2801 Atlantic Avenue		Long Beach	CA	90806
Long Island Jewish Medical Center	270-05 76th Avenue		New Hyde Park	NY	11040
Los Alamitos Medical Center	3751 Katella Avenue		Los Alamitos	CA	90720
Los Robles Hospital & Medical Center	215 W. Janss Road		Thousand Oaks	CA	91360-1899
Louisiana Medical Center and Heart Hospital	64030 Louisiana Highway 434		Lacombe	LA	70445
Lourdes Hospital	1530 Lone Oak Road		Paducah	KY	42003

Lowell General Hospital	295 Varnum Avenue		Lowell	MA	01854
Lower Bucks Hospital	501 Bath Road		Bristol	PA	19007
Lower Keys Medical Center	5900 College Road		Key West	FL	33040
Loyola University Medical Center	2160 S. First Avenue	Rm. 1318 Bldg. 104 Att: Mike	Maywood	IL	60153
LSU Bogalusa Medical Center	433 Plaza Street		Bogalusa	LA	70427
Lubbock Heart Hospital	4810 N. Loop 289		Lubbock	LA	79416
Lutheran Hospital of Indiana	7950 W. Jefferson Boulevard		Fort Wayne	IN	46804
Lutheran Medical Center	150 55th Street		Brooklyn	NY	11220
Lynchburg General Hospital	1901 Tate Springs Road	Cardiac Cath Lab	Lynchburg	VA	24501-1167
MacNeal Hospital	3249 S. Oak Park Avenue		Berwyn	IL	60402
Magnolia Regional Health Center	611 Alcorn Drive		Corinth	MS	38834
Maimonides Medical Center Division of Cardiology	4802 10th Avenue		Brooklyn	NY	11219
Maine Medical Center	22 Bramhall Street		Portland	ME	04102
Mainland Medical Center	6801 Emmett F. Lowry Expressway		Texas City	TX	77591

Manatee Memorial Hospital	206 Second Street East		Bradenton	FL	34208
Marian Medical Center	1400 East Church Street		Santa Maria	CA	93454
Maricopa Integrated Health System	2601 E. Roosevelt Street		Phoenix	AZ	85008
Marin General Hospital	250 Bon Air Road		Greenbrae	CA	94904
Marion General Hospital	441 N. Wabash Avenue		Marion	IN	46952
Marion General Hospital	1000 McKinley Park Drive		Marion	OH	43302-6397
Marshall University School of Medicine	420 West Magnetic Street		Huntington	WV	25701
Martha Jefferson Hospital	459 Locust Avenue		Charlottesville	VA	22902
Martin Memorial Medical Center	PO Box 9010		Stuart	FL	34995
Mary Black Hospital	1700 Skylyn Drive		Spatanburg	SC	29307
Mary Greeley Medical Center	1111 Duff Avenue		Ames	IA	50010
Mary Hitchcock Memorial Hospital	One Medical Center Drive		Lebanon	NH	03756
Mary Immaculate Hospital	5801 Bremo Road	Suite 310 N. Medical Office Building	Richmond	VA	23226
Mary Rutan Hospital	205 Palmer Avenue		Bellefontaine	OH	43311
Mary Washington Hospital	1001 Sam Perry Boulevard		Fredericksburg	VA	22401

Massachusetts General Hospital	55 Fruit Street		Boston	MA	02114
Maui Memorial Medical Center	221 Mahalani Street		Wailuku	HI	96793
Maury Regional Hospital	1224 Trotwood Avenue		Columbia	TN	38401
Mayo Clinic	4500 San Pablo Road		Jacksonville	FL	32216
Mayo Clinic Arizona	5777 E. Mayo Boulevard		Phoenix	AZ	85054
Mayo Clinic – St. Mary's Hospital	1216 2nd Street SW		Rochester	MN	55902
McAllen Medical Center	301 W. Expressway 83		McAllen	TX	78503
MCG Health Inc.	1120 15th Street BBR-8521		Augusta	GA	30912
McKay-Dee Hospital Center	4401 Harrison Boulevard		Ogden	UT	84405
McKee Medical Center	2000 Boise Avenue		Loveland	CO	80538
Mclaren Regional Medical Center	401 S. Ballenger Highway		Flint	MI	48532
McLeod Regional Medical Center	555 E. Chaves Street		Florence	SC	29501
Mease Countryside Hospital	300 Pinellas Street	MS 73	Clearwater	FL	33756
Mease Dunedin Hospital	207 Jeffords Street MS 142		Clearwater	FL	33756
Med Central Mansfield	335 Glessner Avenue		Mansfield	OH	44903

Medcenter One	300 N. 7th Street		Bismarck	ND	58501
Medical Center at Bowling Green	250 Park Street		Bowling Green	KY	42101
Medical Center Hospital	500 W. 4th Street		Odessa	TX	79760
Medical Center of Arlington	3301 Matlock Road		Arlington	TX	76015
Medical Center of Aurora	1501 S. Potomac Street		Aurora	CO	80012
Medical Center of McKinney	4500 Medical Center Drive		McKinney	TX	75069
Medical Center of Plano	3901 W. 15th Street		Plano	TX	75075-7738
Medical Center of South Arkansas, LLC	700 West Grove Street		El Dorado	AR	71730
Medical Center of Southeastern Oklahoma	1800 University Boulevard		Durant	OK	74701
Medical Center of the Rockies	2500 Rocky Mountain Avenue		Loveland	CO	80538
Medical City Dallas Hospital	7777 Forest Lane		Dallas	TX	75230
Medical University of South Carolina	25 Countenay Drive		Charleston	SC	29425-2110
Memorial Health System	1400 E. Boulder Street		Colorado Springs	CO	80909-5599
Memorial Health University Medical Center	Cardiac Cath Lab Memorial Health University Medical Center	4700 Waters Avenue	Savannah	GA	31404

Memorial Hermann Hospital	6411 Fannin Street		Houston	TX	77030
Memorial Hermann HVI South West	7787 Southwest Freeway		Houston	TX	77074
Memorial Hermann Memorial City Hospital	921 Gessner Road		Houston	TX	77024
Memorial Hermann Northwest Hospital	1635 North Loop West		Houston	TX	77008
Memorial Hermann The Woodlands Hospital	9250 Pinecroft Drive		Spring	TX	77380
Memorial Hospital	800 West 9th Street		Jasper	IN	47546
Memorial Hospital	2525 Desales Avenue		Chattanooga	TN	37404-1102
Memorial Hospital at Gulfport	4500 13th Street	PO Box 1810	Gulfport	MS	39502
Memorial Hospital Carbondale	405 W. Jackson Street		Carbondale	IL	65902
Memorial Hospital Miramar	1901 SW 172 Avenue		Miramar	FL	33029
Memorial Hospital of Martinsville	320 Hospital Drive		Martinsville	VA	24112
Memorial Hospital of Rhode Island Brown University	111 Brewster Street		Pawtucket	RI	02860
Memorial Hospital of South Bend	615 N. Michigan Street		South Bend	IN	46601-1033
Memorial Hospital Pembroke/ South	7800 Sheridan Street		Pembroke Pines	FL	33024

Broward Hospital					
Memorial Hospital West/South Broward Hospital District	703 North Flamingo Road		Pembroke Pines	FL	33028
Memorial Hospital – Jacksonville	3625 University Boulevard South		Jacksonville	FL	32215
Memorial Hospitals Association	1700 Coffee Road		Modesto	CA	95355
Memorial Medical Center	701 N. First Street		Springfield	IL	62781
Memorial Medical Center	2450 S. Telshor Boulevard		Las Cruces	NM	88011
Memorial Medical Center	1086 Franklin Street		Johnstown	PA	15905-4398
Memorial Regional Hospital/South Broward Hospital	3501 Johnson Street		Hollywood	FL	33021
Memphis Hospital (Germantown Campus)	1265 Union Avenue		Memphis	TN	38104-3499
Memphis Hospital (North Campus)	1265 Union Avenue		Memphis	TN	38104-3499
Menorah Medical Center	5721 West 119th Street		Overland Park	KS	66209
Mercy Fitzgerald Hospital	1500 Lansdowne Avenue		Darby	PA	19023
Mercy General Health Partners	1500 E. Sherman Boulevard		Muskegon	MI	49444

Mercy Hospital	144 State Street		Portland	ME	04101
Mercy Hospital	2925 Chicago Avenue		Minneapolis	MN	55407
Mercy Hospital – Scranton	746 Jefferson Avenue		Scranton	PA	18501
Mercy Hospital & Medical Center	2525 South Michigan Avenue		Chicago	IL	60616-2477
Mercy Hospital Anderson	7500 State Road		Cincinnati	OH	45255
Mercy Hospital Attn.: Accounts Payable	3663 South Miami Avenue		Miami	FL	33133
Mercy Hospital of Buffalo	515 Abbott Road	Marion Building Suite 306	Buffalo	NY	14220
Mercy Hospital Attn: A/P	271 Carew Street PO Box 9012		Springfield	MA	01102
Mercy Iowa City	500 East Market Street		Iowa City	IA	52245
Mercy Medical Center	2700 Steward Parkway		Roseburg	OR	97470
Mercy Medical Center	801 5th Street		Sioux City	IA	51101
Mercy Medical Center	1111 6th Avenue		Des Moines	IA	51101
Mercy Medical Center	1320 Mercy Drive	Cardiology Management and Support 3C	Canton	OH	44708
Mercy Medical Center	301 St. Paul Place		Baltimore	MD	21202
Mercy Medical Center	2900 W. 9th Avenue	Suite 107	Oshkosh	WI	54904

Mercy Medical Center	701 10th Street SE		Cedar Rapids	IA	52403
Mercy Medical Center	1000 North Village Ave		Rockville Centre	NY	11571
Mercy Medical Center Redding	2175 Rosaline Avenue	PO Box 496009	Redding	CA	96049-6009
Mercy Medical Center – North Iowa	1000 4th Street SW		Mason City	IA	50401
Mercy Memorial Health Center Sisters of Mercy	1011 14th Avenue NW		Ardmore	OK	73401
Mercy Regional Health Center	1823 College Avenue		Manhattah	KS	67218
Mercy Regional Medical Center	1010 Three Springs Boulevard		Durango	CO	81301
Mercy St. Vincent Medical Center	2213 Cherry Street		Toledo	OH	43608
MeritCare Hospital	801 Broadway North		Fargo	ND	58122
Meriter Hospital	202 South Park Street	10 Tower – Heart Center	Madison	WI	53715
Methodist Charlton Medical Center (Methodist Health System)	MHS Sam & Anne Kesner Heart Center	1441 N. Beckley Avenue	Dallas	TX	75203
Methodist Hospital	7700 Floyd Curl Drive		San Antonio	TX	78229
Methodist Hospital	6500 Excelsior Boulevard 2nd Floor HVC		St. Louis Park	MN	55426
Methodist Hospital of South CA	300 W Huntington Drive		Arcadia	CA	91007-3402

Methodist Lebonheur Health Care University Hospital (University Campus)	1265 Union Avenue		Memphis	TN	38104-3499
Methodist Medical Center of Illinois	221 NE Glen Oak Avenue		Peoria	IL	61636
Methodist Medical Center of Oak Ridge	990 Oak Ridge Turnpike		Oak Ridge	TN	37830
Methodist Speciality and Transplant Hospital	7700 Floyd Curl Drive		San Antonio	TX	78229
Methodist Stone Oak Hospital	1139 E. Sonterra Boulevard		San Antonio	TX	78258
Methodist Sugar Land Hospital	16655 Southwest Freeway		Sugar Land	TX	77479
Methodist Willowbrook Hospital	18220 Tomball Parkway		Houston	TX	77070
Metro Health Hospital	5900 Byron Center Road		Wyoming	MI	49519
MetroHealth Medical Center	2500 MetroHealth Drive		Cleveland	OH	44109
Metroplex Hospital	2201 S. Clear Creek Road		Killeen	TN	76549
Metropolitan Methodist Hospital	1310 McCullough Avenue		San Antonio	TX	78212
MetroWest Medical Center	115 Lincoln Street	Cardiac Cath Lab	Framingham	MA	01702-6327
Miami Valley Hospital	One Wyoming Street		Dayton	OH	45409
Michael Reese Hospital	2929 S. Ellis Avenue		Chicago	IL	60616

Middle Tennessee Medical Center	4220 Harding Road		Nashville	TN	37205
Midland Memorial Hospital	2200 W. Illinois Avenue c/o Heart Institute		Midland	TX	79701
Midlands Community Hospital	6901 N. 72nd Street		Omaha	NE	68122
MidMichigan Medical Center-Midland	4005 Orchard Drive		Midland	MI	48670
Midwest Regional Medical Center	2825 Parklawn Drive		Midwest City	OK	73110
Milford Regional Medical Center	14 Prospect Street		Milford	MA	01568
Millard Fillmore Hospital	100 High Street		Buffalo	NY	14203
Millard Filmore Suburban	100 High Street		Buffalo	Ny	14203
Mills-Peninsula Hospital	1783 Elcamino Real		Burlingame	CA	94010
Miriam Hospital	164 Summit Avenue		Providence	RI	02906
Mission Hospital Regional Medical Center	27700 Medical Center Road		Mission Viejo	CA	92691-6426
Mission Hospitals, Inc.	509 Biltmore Avenue		Asheville	NC	28801-4690
Mississippi Baptist Medical Center	1225 N State Street		Jackson	MS	39202-2097
Missouri Baptist Medical Center	3015 N. Ballas Road	3105 North Ballas Road	Saint Louis	MO	63131-2374

Moberly Regional Medical Center	1515 Union Avenue		Moberly	MO	65270
Mobile Infirmary Medical Center	5 Mobile Infirmary Circle		Mobile	AL	36607
Monongalia Genera; Hospital	1200 JD Anderson Drive		Morgantown	WV	26505
Monroe Hospital	4011 South Medical Park Boulevard		Bloomington	IN	47403
Montgomery General Hospital	18101 Prince Philip Drive		Olney	MD	20832
Morris Hospital	150 West High Street		Morris	IL	60450
Morristown Memorial Hospital	100 Madison Avenue		Morristown	NJ	07962
Morton Plant Hospital	300 Pinellas Street	MS 73	Clearwater	FL	33756
Morton Plant North Bay Hospital	6600 Madison Street		New Port Richey	FL	34652
Moses Cone Health System	1200 N. Elm Street		Greensboro	NC	27401
Mother Frances Hospital	800 E. Dawson Street		Tyler	TX	75701
Mount Auburn Hospital	330 Mount Auburn Street	South 2 – Administration	Cambridge	MA	02138
Mount Carmel East	6150 East Broad Street	Office EB 148	Columbus	OH	42313
Mount Carmel St. Ann's Hospital	6150 East Broad Street	Office EB 148	Columbus	OH	42313
Mount Carmel West	6150 East Broad Street	Office EB 148	Columbus	OH	42313

Mount Clemens Regional Medical Center	1000 Harrington Street		Mount Clemens	MI	48043-2992
Mount Sinai Medical Center	4300 Alton Road		Miami Beach	FL	33140
Mountain View Regional Center	4311 E. Lohman Avenue		Las Cruces	NM	88011
Mountain Vista Medical Center	1301 S. Crismon Road		Mesa	AZ	85209
Mountainview Hospital	3100 N. Tenaya Way		Las Vegas	NV	89128
Munroe Regional Medical Center	1500 SW 1st Avenue PO Box 6000		Ocala	FL	34478
Munson Medical Center	1105 Sixth Street		Traverse City	MI	49684-2386
Nacogdoches Medical Center	4920 NE Stallings Drive		Nacogdoches	TX	75965
Naples Community Hospital	350 7th Street South		Naples	FL	34102
Nashoba Valley Medical Center	200 Groton Road		Ayer	MA	01432
NEA Baptist Memorial Hospital	3024 Stadium Boulevard		Jonesboro	AR	72401
Nebraska Heart Hospital	7500 South 91st Street		Lincoln	NE	68526
Nebraska Methodist Hospital	8303 Dodge Street		Omaha	NE	68114

New Hanover Regional Medical Center	2131 S. 17th Street		Wilmington	NC	28402
New York Community Hospital	2525 Kings Highway		Brooklyn	NY	11229
New York Hospital Medical Center of Queens Health Education Library	5645 Main Street	Floor 1	Flushing	NY	11355
New York Methodist Hospital	506 6th Street Brooklyn		New York City	NY	11215
New York Presbyterian Hospital	6220West 168th Street	PH-2	New York City	NY	10032
Newark Beth Israel Medical Center	201 Lyons Avenue at Osborne Terrace		Newark	NJ	07112
Niagara Falls Memorial Medical Center	621 Tenth Street		Niagara Falls	NY	14302
Nicholas H. Noyes Memorial Hospital	111 Clara Barton Street		Dansville	NY	14437
NIX Healthcare System	414 Navarro Street		San Antonio	TX	78205
Norman Regional Health System	PO Box 1308		Norman	OK	73070-1308
North Austin Medical Center	5103 Hereford Way		Austin	TX	78727
North Bay Medical Center	1200 B. Gale Wilson Boulevard		Fairfield	CA	94533

North Carolina Baptist Hospital	Medical Center Boulevard		Winston-Salem	NC	27157
North Central Baptist Hospital	730 North Main Avenue	Suite 409	San Antonio	TX	78205
North Colorado Medical Center	1801 16th Street		Greeley	CO	80631
North Cypress Medical Center	21214 Northwest Freeway		Cypress	TX	77429
North Florida Regional Medical Center	6500 Newberry Road		Gainesville	FL	32605
North Hills Hospital	4401 Booth Calloway Road		North Richland Hills	TX	76180
North Kansas City Hospital	2800 Clay Edward Drive		North Kansas City	MO	64116
North Memorial Medical Center	3300 Oakdale Avenue, N		Robbinsdale	MN	55422
North Mississippi Medical Center	830 S. Gloster Street		Tupelo	MS	38801
North Oaks Medical Center	15790 Paul Vega MD Drive		Hammond	LA	70403
North Shore Medical Center	1100 NW 95th Street		Miami	FL	33150
North Shore Medical Center FMC Campus	5000 W. Oakland Park Boulevard		Ft. Lauderdale	FL	33313
North Shore Medical Center – Salem Hospital	81 Highland Avenue	Davenport 5	Salem	MA	01970
North Shore University Medical					

System Cardiology					
North Shore University Hospital	300 Community Drive		Manhasset	NY	11030
North Suburban Medical Center	9191 Grant Street		Denver	CO	80229
North Vista Hospital	1409 E. Lake Mead Boulevard		North Las vegas	NV	89030
Northeast Alabama Regional Medical Center	400 East 10th Street		Anniston	AL	36202
Northeast Baptist Hospital	730 N. Main Avenue	Suite 409	San Antonio	TX	78205
Northeast Georgia Medical Center	743 Spring Street		Gainesville	GA	30501
NorthEast Medical Center	920 Church Street North		Concord	NC	28025
Northeast Methodist Hospital	12412 Judson Road		San Antonio	TX	78233
Northeast Regional Medical Center	315 S. Osteopathy		Kirksville	MO	63501
Northern Illinois Medical Center	4201 Medical Center Drive		McHenry	IL	60050
Northern Michigan Regional Hospital	416 Connable Avenue		Petoskey	MI	49770
Northern Nevada Medical Center	2375 E. Prater Way		Sparks	NV	89434
Northlake Medical Center	1455 Montreal Road		Tucker	GA	30084

Northshore Regional Medical Center	100 Medical Center Drive		Slidell	LA	70461
Northside Hospital	1000 Johnson Ferry Road		Atlanta	GA	30342
Northside Hospital	6000 49th Street, N		Pinellas Park	FL	33709
Northside Hospital – Forsyth	1200 Northside Forsyth Drive		Cumming	GA	30041
Northwest Community Hospital	800 W. Central Road		Arlington Heights	IL	60005
Northwest Hospital	1550 North 115th Street		Seattle	WA	98113
Northwest Hospital Center	5401 Old Court Road		Randallstown	MD	21133
Northwest Medical Center	2801 N. State Road 7		Margate	FL	33063
Northwest Medical Center	Northwest Medical Center	6200 N. La Cholla Boulevard	Tucson	AZ	85741
Northwest Medical Center – Bentonville	609 West Maple Street		Springdale	AR	72764
Northwest Arkansas Hospitals LLC, dba NMC	609 West Maple Street		Springdale	AR	72764
Northwest Mississippi Regional Medical Center	1970 Hospital Drive		Clarksdale	MS	38614
Northwestern Memorial Hospital	676 N. St. Clair Street, Suite 1700		Chicago	IL	60611
Norton Audubon	PO Box 35070		Louisville	KY	40232
Norton Hospital	PO Box 35070		Louisville	KY	40232
Norwalk Hospital	24 Stevens Street		Norwalk	CT	06856

NYU Medical Center	560 First Avenue		New York	NY	10016
Oak Hill Hospital	11375 Cortez Boulevard		Brooksville	FL	34613
Obici Hospital	2800 Godwin Boulevard		Suffolk	VA	23434
Ocala Regional Mecical Center	1431 SW First Avenue		Ocala	FL	34474
Ocean Springs Hospital	2809 Denny Avenue		Pascagoula	MS	39581
Ochsner Medical Center – Baton Rouge	17000 Medical Center Drive		Baton Rouge	LA	70816
Ochsner Medical Center – West Bank	2500 Belle Chasse Highway		Gretna	LA	70056
Ochsner Medical Center – Kenner (Kenner Regional Medical Center)	180 West Esplanade Avenue		Kenner	LA	70065
Ochsner Medical Foundation	1514 Jefferson Highway		New Orleans	LA	70121
Oconee Regional Medical Center	812 N. Cobb Street		Milledgeville	GA	31061
O'Connor Hospital	2105 Forest Avenue		San Jose	CA	95128
Odessa Regional Hospital	520 East Sixth Street		Odessa	TX	79760
Ogden Regional Medical Center	5475 South 500 East		Ogden	UT	84403
Ohio Valley Medical Center	2000 Eoff Street		Wheeling	WV	26003
Oklahoma Heart Hospital	4050 W. Memorial Road		Oklahoma City	OK	73120

Oklahoma State University Medical Center	744 W. 9th Street		Tulsa	OK	74127
Orange Regional Medical Center	60 Prospect Avenue		Middletown	NY	10940
Oregon Health & Science University	3181 SW Sam Jackson Road		Portland	OR	97239
Orlando Regional Medical Center	1414 Kuhl Avenue		Orlando	FL	32806
Osceola Regional Medical Center	700 W. Oak Street		Kissimmee	FL	34745
OSF Saint Anthony Medical Center	5666 East State Street		Rockford	IL	61108
OSF Saint Joseph Medical Center	2200 E. Washington Street		Bloomington	IL	61701
OSF Saint Francis Medical Center	530 N.E. Glen Oak Avenue		Peoria	IL	61637
OU Medical Center	700 NE 13th Street		Oklahoma City	OK	73104
Our Lady of Lourdes Medical Center	1600 Haddon Avenue		Camden	NJ	08103
Our Lady of Lourdes Regional Medical Center	611 Saint Landry Street PO Box 4027		Lafayette	LA	70506
Our Lady of The Lake Regional	5000 Hennessy Boulevard		Baton Rouge	LA	70808-4350
Our Lady of the Resurrection Medical Center	5645 W. Addison Street		Chicago	IL	60634

Overlake Hospital Medical Center	1035 116th Avenue NE		Bellevue	WA	98004
Overland Park Regional Medical Center/ Health Midwest	10500 Quivira Road		Overland Park	KS	66215
Owensboro Medical Health System	811 E. Parrish Avenue		Owensboro	KY	42303
Ozarks Medical Center	1100 Kentucky Avenue	PO Box 1100	West Plains	MO	65775
P and S Surgical Hospital	312 Grammont Street		Monroe	LA	71201
Palm Beach Gardens Medical Center	3360 Burns Road		Palm Beach Gardens	FL	33410
Palmetto General Hospital	2001 West 68th Street		Hialeah	FL	33016
Palmetto Health Heart Hospital	6 Richland Medical Park Drive	Suite 4525	Columbia	SC	29203
Palomar Medical Center	555 East Valley Parkway		Escondido	CA	92025
Palos Community Hospital	12251 S. 80th Avenue	Cardiovascular Services	Palos Heights	IL	60463-0930
Paoli Hospital	557 Lankenau MOB East	100 Lancaster Avenue	Wynnewood	PA	19096
Paradise Valley Hospital	3929 E. Bell Road		Phoenix	AZ	85032
Paradise Valley Hospital	2400 E. Fourth Street		National City	CA	91950

Paris Regional Medical Center	865 DeShong Drive		Paris	TX	75462
Park Plaza Hospital	1313 Hermann Drive		Houston	TX	77004
Parkridge Medical Center	2333 McCallie Avenue		Chattanooga	TN	37404
Parkview Hospital	2200 Randallia Drive		Fort Wayne	IN	46805
Parkview Medical Center	400 W. 16th Street		Pueblo	CO	81003
Parkway Regional Medical Center	160 NW 170th Street		North Miami	FL	33169
Parkwest Medical Center	9352 Parkwest Boulevard		Knoxville	TN	37923
Parma Community General Hospital	7007 Powers Boulevard		Parma	OH	44129
Parrish Medical Center	951 N. Washington Avenue		Titusville	FL	32796
Pasco Regional Medical Center	13000 100 Fort King Road		Dade City	FL	33525
PBI Regional Medical Center	350 Boulevard		Passaic	NJ	07055
Peace River Regional Medical	2500 Harbor Boulevard		Port Charlotte	FL	33952
Peninsula Regional Medical Center	100 East Carroll Street		Salisbury	MD	21801
Penn Presbyterian Medical Center	39th & Market Streets		Philadelphia	PA	19104
Penn State Hershey Medical Center	PO Box 850 H139		Hershey	PA	17033

Pennsylvania Hospital	800 Spruce Street		Philadelphia	PA	19107-6192
Penrose – St. Francis Health Services	2222 North Nevada, #3000		Colorado Springs	CO	80907
Phelps County Regional Medical Center	1000 W. 10th Street		Rolla	MO	65401
Phoebe Putney Memorial Hospital	417 Third Avenue		Albany	GA	31701
Phoenix Baptist Hospital	2000 W. Bethany Home Road		Phoenix	AZ	85015
Phoenixville Hospital	140 Nutt Road		Phoenixville	PA	19460-3906
Piedmont Hospital	95 Collier Road Suite 2075		Atlanta	GA	30309
Piedmont Medical Center	222 S. Herlong Avenue		Rock Hill	SC	29732
Pikesville Medical Center	911 Bypass Road		Pikesville	KY	41501
Pinnicle Health Invasive Cardiology	111 South Front Street		Harrisburg	PA	17101-2099
Pitt County Memorial Hospital	2100 Statonsburg Road	PCMH Heart Center	Greenville	NC	27835
Plantation General Hospital	401 NW 42nd Avenue		Plantation	FL	33317
Plaza Medical Center of Fort Worth	900 Eighth Avenue		Fort Worth	TX	76104
Pocono Medical Center	206 East Brown Street		East Stroudsburg	PA	18301

Pomona Valley Hospital Med Center	1798 N. Garey Avenue		Pomona	CA	91768
Poplar Bluff Regional Medical Center	2620 N. Westwood Boulevard		Poplar Bluff	MO	63901
Port Huron Hospital	1221 Pine Grove Avenue		Port Huron	MI	48060
Porter Adventist Hospital	2525 S. Downing Street		Denver	CO	80210-5817
Porter Valparaiso Hospital Campus	814 Laporte Avenue		Valparaiso	IN	46383
Portneuf Medical Center	651 Memorial Drive		Pocatello	ID	83201
Portsmouth Regional Hospital	333 Borthwick Avenue		Portsmouth	NH	03801
Prairie Lakes Healthcare	401 9th Avenue		Watertown	SD	57201
Presbyterian Healthcare Services	PO Box 26666		Albuquerque	NM	87125
Presbyterian Hospital – Denton	3000 I-35 N		Denton	TX	76201
Presbyterian Hospital – Dallas	Presbyterian Hospital	8200 Walnut Hill Lane	Dallas	TX	75231
Presbyterian Hospital – Plano	6200 West Parker Road		Plano	TX	75093-7914
Presbyterian Intercommunity Hospital	12401 Washington Boulevard		Whittier	CA	90602
Presbyterian/ St.Luke's Medical Center	1719 E. 19th Avenue		Denver	CO	80218-1235

Prince George's Hospital Center	3001 Hospital Drive		Cheverly	MD	20785
Princeton Baptist Medical Center	Princeton BMC, Nursing Administration 701 Princeton Avenue, SW		Birmingham	AL	35211-1399
Proctor Hospital	5409 N. Knoxville Avenue		Peoria	IL	61614
Protestant Memorial Medical Center	4500 Memorial Drive		Belleville	IL	62226
Provena Covenant Medical Center	1400 West Park Street		Urbana	IL	61801-9901
Provena Mercy Medical Center	1325 North Highland Avenue		Aurora	IL	60506
Provena Saint Joseph Medical Center	333 North Madison Street		Joliet	IL	60435-6595
Provena Saint Marys Hospital	500 West Court Street		Kankakee	IL	60901
Provena St. Joseph Hospital	77 N. Airlite Street		Elgin	IL	60123
Provena United Samaritans Medical Center	812 North Logan Avenue		Danville	IL	61832
Providence Alaska Medical Center	3200 Providence Drive		Anchorage	AK	99508-4662
Providence Health Center	6901 Medical Parkway		Waco	TX	76712
Providence Holy Cross Medical Center	501 South Buena Vista Street		Burbank	CA	91505
Providence Hospital	6801 Airport Boulevard		Mobile	AL	36608
Providence Hospital	2435 Forest Drive		Columbia	SC	29204

Providence Medical Center	8929 Parallel Parkway		Kansas City	KS	66112-1689
Providence Memorial Hospital	2001 North Oregon Street		El Paso	TX	79902
Providence Park Hosptial	16001 W. Nine Mile Road		Novi	MI	48374
Providence Portland Medical Center	9205 SW Barnes Road	9205 South West. Barnes Road	Portland	OR	97225
Providence Saint Joseph Medical Center	501 South Buena Vista Street		Burbank	CA	91505
Providence Saint Vincent Medical Center	Regional Heart Data Services	9205 South West Barnes Road #33	Portland	OR	97225
Providence St. Peter Hospital	413 N. Lilly Road		Olympia	WA	98506
Providence Tarzana Medical Center	18321 Clark Street		Tarzana	CA	91356-3501
Queens Medical Center	1301 Punchbowl Street		Honolulu	HI	96813
Rapid City Regional Hospital	353 Fairmont Boulevard		Rapid City	SD	57702
Rapides Regional Medical Center	211 4th Street Box 30101		Alexandria	LA	71301
Raulerson Hospital (HCA)	1796 Highway 441 North		Okeechobee	LA	34972
Redmond Regional Medical Center	501 Redmond Road		Rome	GA	30165

Reedsburg Area Medical Center	2000 N. Dewey Avenue		Reedsburg	WI	53959
Regents of the University of Michigan	300 N. Ingalls Street 7A10		Ann Arbor	MI	48109
Regional Hospital of Jackson	367 Hospital Boulevard		Jackson	TN	38305
Regional Medical Center	225 N. Jackson Avenue		San Jose	CA	95116
Regional Medical Center	3000 St. Matthews Road		Orangeburg	SC	29118
Regional Medical Center	900 Hospital Drive		Madisonville	KY	42431-1644
Regional Medical Center Bayonet Point	14000 Fivay Road		Hudson	FL	34667
Regions Hospital	640 Jackson Street	Mail Stop 11102-M	St. Paul	MN	55101
Reid Hospital & Healthcare Services	1401 Chester Boulevard		Richmond	IN	47374
Renown Regional Medical Center	1155 Mill Street	R 11	Reno	NV	89502
Research Medical Center	2316 East Meyer Boulevard	Cardiology Services	Kansas City	MO	64132
Reston Hospital Center	1850 Town Center Parkway		Reston	VA	20190
Resurrection Medical Center	7435 Talcott Avenue		Chicago	IL	60631
Rex Hospital	4420 Lake Boone Trail		Raleigh	NC	27607
Rhode Island Hospital	593 Eddy Street		Providence	RI	02903

Richmond University Medical Center	355 Bard Avenue		Staten Island	NY	10310
Riddle Memorial Hospital	1068 W. Baltimore Pike		Media	PA	19063-5177
Rideout Memorial Hospital	726 4th Street		Maryville	CA	95901
Ridgecrest Regional Hospital	1081 N. China Lake Boulevard		Ridgecrest	CA	93555
Rio Grande Regional Hospital	101 E. Ridge Road		McAllen	TX	78503
River Region Medical Center	2100 Highway 61 North		Vicksburg	MS	39183
Riverside Community Hospital	4445 Magnolia Avenue		Riverside	CA	92501
Riverside Medical Center	350 N. Wall Street		Kankakee	IL	60901
Riverside Methodist Hospital	3535 Olentangy River Road		Columbus	OH	43214
Riverside Regional Medical Center	500 J Clyde Morris Boulevard		Newport News	VA	23601
Riverview Hospital	395 Westfield Road		Noblesville	IN	46060
Riverview Regional Medical Center	600 South Third Street	PO Box 268	Gadsden	AL	35901
Robert Packer Hospital	1 Guthrie Square		Gadsden	AL	18840
Robinson Memorial Hospital	6847 N. Chestnut Street		Ravenna	OH	44266
Rochester General Hospital	1425 Portland Avenue		Rochester	NY	14621

Rockford Memorial Hospital	2400 North Rockton Avenue		Rockford	IL	61103
Rogue Valley Medical Cent	2825 E. Barnett Road	Performance Improvement Dept.	Medford	OR	97504
Rome Memorial Hospital	1500 North James Street		Rome	NY	13440
Roper Hospital	316 Calhoun Street		Charleston	SC	29401
Rose Medical Center	4567 E. 9th Avenue		Denver	CO	80220-3941
Round Rock Medical Center	2400 Round Rock Medical Center		Round Rock	TX	78681
Rush Hospital	1314 19th Avenue		Meridian	MS	39301
Rush University Medical Center	1653 West Congress Parkway		Chicago	IL	60612
Russell Medical Center	3316 Highway 280 PO Box 939		Alexander City	AL	35011
Sacred Heart Hospital of Pensacola	5151 North 9th Avenue		Pensacola	FL	32504-8721
Sacred Heart Hospital Attn: A/P	900 W. Clairemont Avenue		Eau Claire	WI	54701
Sacred Heart Medical Center	770 E. 11th Avenue		Eugene	OR	97401
Sacred Heart Medical Center	101 W. Eighth Avenue		Spokane	WA	99204
Saddleback Memorial Medical Center	24451 Health Center Drive		Laguna Hills	CA	92653
Saint Agnes Medical Center	1303 E. Herndon Avenue		Fresno	CA	93720
Saint Bernadine	2101 N. Waterman Avenue	2101 N.	San Bernadino	CA	92404-4836

Medical Center		Waterman Avenue			
Saint Clare's Hospital	611 St. Joseph's Avenue		Marshfield	WI	54449
Saint Elizabeth Health Center	1044 Belmont Avenue		Youngstown	OH	44511
Saint Elizabeth Hospital	2700 W. 9th Avenue Suite 107		Oshkosh	WI	54904
Saint Elizabeth Medical Center-South	1 Medical Village Drive		Edgewood	KY	41017-3403
Saint Elizabeth Regional Medical Center	555 S. 70th Street		Lincoln	NE	68510-2462
Saint Elizabeth's Hospital	211 South 3rd Street		Belleville	IL	62220-1915
Saint Francis Hospital	2122 Manchester Expressway		Columbus	GA	31904
Saint Francis Hospital	5959 Park Avenue		Memphis	TN	38119
Saint Francis Hospital	6161 S. Yale Avenue		Tulsa	OK	74136
Saint Francis Hospital & Health Center	8111 S. Emerson Avenue		Indianapolis	IN	46237
Saint Francis Hospital & Medical Center	114 Woodland Street		Hartford	CT	06105
Saint Francis Hospital of Evanston	355 Ridge Avenue		Evanston	IL	60202
Saint John Hospital & Medical Center	22151 Moross Road	Professional Bldg #1, #126	Detroit	MI	48236-2148
Saint John Macomb-Oakland Hospital	11800 E. 12 Mile Road	Room # 2510	Warren	MI	48093

Saint Johns Health Center	1328 Twenty-Second Street		Santa Monica	CA	90404
Saint Johns Mercy Medical Center	615 S. New Ballas Road		St. Louis	MO	63141
Saint Joseph – London	310 East 9th Street		London	KY	40741
Saint Joseph Hospital	1100 W. Steward Drive		Orange	CA	92868
Saint Joseph Hospital	2700 Dolbeer Street		Eureka	CA	95501
Saint Joseph Hospital	3001 W. Martin Luther King Boulevard		Tampa	FL	33607
Saint Joseph Hospital	2900 N. Lake Shore Drive		Chicago	IL	60657
Saint Joseph Regional Health Center	2801 Franciscan Street		Bryan	TX	77802-2544
Saint Joseph's Hospital	1824 Murdoch Avenue		Parkersburg	WV	26102-0327
Saint Josephs Hospital / Marshfield Clinic	611 St. Joseph Avenue		Marshfield	WI	54449-1832
Saint Joseph's Hospital of Atlanta	5665 Peachtree Dunwoody Road		Atlanta	GA	30342
Saint Josephs Regional Medical Center – SB	801 East LaSalle Avenue		South Bend	IN	46617
Saint Louis University Hospital	3635 Vista at Grand		Saint Louis	MO	63110
Saint Luke's East – Lee's Summit	100 NE Saint Luke's Boulevard		Lee's Summit	MO	64086

Saint Luke's Hospital	4401 Wornall Road (MAHI 5th Floor)		Kansas City	MO	64111
Saint Luke's Northland	Saint Luke's Hospital	4401 Wornall Road	Kansas City	MO	64111
Saint Luke's Hospital	232 S. Woods Mill Road		Chesterfield	MO	63017-3417
Saint Luke's Regional Medical Center	190 E. Bannock Street		Boise	ID	83712-6241
Saint Mary Corwin Medical Center	1008 Minnequa Avenue		Pueblo	CO	81004-3798
Saint Mary's Hospital	56 Franklin Street		Waterbury	CT	06706
Saint Mary's Hospital and Regional Medical Center	2635 N. 7th Street		Grand Junction	CO	81501-8209
Saint Mary's Medical Center	2900 First Avenue		Huntington	WV	25702
Saint Mary's Medical Center	3700 Washington Avenue		Evansville	IN	47750
Saint Peter's Hospital	315 South Manning Boulevard		Albany	NY	12208
Saint Rita's Medical Center	730 West Market Street		Lima	OH	45801-4602
Saint Thomas Health Care Services	4220 Harding Road		Nashville	TN	37236
Saint Vincent Health Center	252 West 25th Street		Erie	PA	16544
Saint Vincent Hospital	123 Summer Street	Suite 270	Worcester	MA	01608
Saint Vincent Medical Center/Health Center	2 St. Vincent Circle		Little Rock	AR	72205

Saint Vincent's Medical Center	2800 Main Street		Bridgeport	CT	06606
Salem Hospital (Regional Health Services)	665 Winter Street SE		Salem	OR	97301-3919
Salina Regional Health Center	400 S. Santa Fe Avenue		Salina	KS	67401
Salinas Valley Memorial Hospital	450 E. Romie Lane		Salinas	CA	93901-4098
Salt Lake Regional Medical Center	1050 E South Temple		Salt Lake City	UT	84102
San Antonio Community Hospital	999 San Bernardino Road		Upland	CA	91786
San Francisco Heart and Vascular Institute	1900 Sullivan Avenue		Daly City	CA	94015
San Joaquin Community Hospital	2615 Eye Street		Bakersfield	CA	93301
San Joaquin General Hospital	500 W. Hospital Road		French Camp	CA	95231
San Juan Regional Medical Center	801 W. Maple Street		Farmington	NM	87401
San Ramon Regional Medical Center	6001 Norris Canyon Road		San Ramon	CA	94583
Sanford USD Medical Center	900 East 54th Street		Sioux Falls	SD	57104
Santa Barbara Cottage Hospital	PO Box 689		Santa Barbara	CA	93102-0689
Santa Rosa Memorial Hospital	1165 Montgomery Drive PO Box 522		Santa Rosa	CA	95402

Sarasota Memorial Hospital	1700 S. Tamiami Trail		Sarasota	FL	34239
Satilla Heart Center	410 Darling Avenue		Waycross	GA	31501
Savoy Medical Center	801 Poincianna Street		Mamou	LA	70554
Scott and White Hospital	2401 South 31st Street		Temple	TX	76508
Scottsdale Healthcare Osborn	7400 E. Osborn Road		Scottsdale	AZ	85260
Scottsdale Healthcare Shea	9003 E. Shea Boulevard – Administration		Scottsdale	AZ	85260
Scottsdale Healthcare Thompson Peak	7400 E. Osborn Road		Scottsdale	AZ	85251
Scripps Green Hospital – La Jolla	10666 North Torrey Pines Road		La Jolla	CA	92037
Scripps Memorial Hospital Encinitas	354 Santa Fe Drive		Encinitas	CA	92024
Scripps Mercy Hospital – San Diego	4077 5th Avenue	MER 74	San Diego	CA	92103
Scripps Mercy Hospital – Chula Vista	435 H Street		Chula Vista	CA	91910
Self Regional Healthcare	1325 Spring Street		Greenwood	SC	29646
Sentara Norfolk General Hospital	600 Gresham Drive		Norfolk	VA	23507
Sentara Obici Hospital	2800 Goodwin Boulevard		Suffolk	VA	23434
Sentara Virginia Beach General Hospital	1060 First Colonial Road		Virginia Beach	VA	23454-0685

Seton Medical Center	1201 W. 38th Street		Austin	TX	78705
Seton Medical Center Williamson	201 Seton Parkway		Round Rock	TX	78665
Shady Grove Adventist Hospital	9901 Medical Center Drive		Rockville	MD	20850
Shands at AGH	801 SW 2nd Avenue		Gainesville	FL	32601
Sharon Regional Health System	740 E. State Street		Sharon	PA	16146
Sharp Chula Vista Medical Center	8695 Spectrum Center Court		San Diego	CA	92123
Sharp Grossmont	5555 Grossmont Center Drive		La Mesa	CA	91942
Sharp Memorial Hospital	7901 Frost Street		San Diego	CA	92123
Shawnee Mission Medical Center	9100 West 74th Street		Shawnee Mission	KS	66204-4004
Shelby Baptist Medical Center	1000 First Street North		Alabaster	AL	35007
Sherman Hospital	934 Center Street	Decision Support	Elgin	IL	60120
Shore Health System of Maryland	219 South Washington Street		Easton	MD	21601
Sierra Medical Center	1625 Medical Center Drive		El Paso	TX	79902
Sierra Providence East Medical Center	1625 Medical Center Drive		El Paso	TX	79902
Sierra Vista Regional Medical Center	1010 S. Murray Avenue		San Luis Obispo	CA	93405

Silver Cross Hospital	1200 Maple Road		Joliet	IL	60432
Simi Valley Hospital & Health Care Services	2975 North Sycamore Drive		Simi Valley	CA	93065
Sinai – Grace Hospital	6071 W. Outer Drive		Detroit	MI	48235
Sinai Hospital of Baltimore	2401 West Belvedere Avenue		Baltimore	MD	21215-5271
Singing River Hospital	2809 Denny Avenue		Pascagoula	MS	39581
Sisters of Charity Hospital	2157 Main Street		Buffalo	NY	14120
Skaggs Community Health Center	PO Box 650		Branson	MO	65615-0650
Skokie Hospital	9600 Gross Point Road	Cardiac Cath Lab	Skokie	IL	60076-1214
Sky Ridge Medical Center	10101 Ridgegate Parkway		Lone Tree	CO	80124
Skyline Medical Center/ HTI Memorial Hospital Corp.	3441 Dickerson Pike		Nashville	TN	37207
Somerset Hospital	225 South Center Avenue		Somerset	PA	15501-2088
South Baldwin Regional Medical Center	1613 N. McKenzie Street		Foley	AL	36535
South Bay Hospital	4016 Sun City Center Boulevard		Sun City Center	FL	33570
South Crest Hospital	8801 S. 101st Avenue E		Tulsa	OK	74133
South Fulton Medical	1170 Cleveland Avenue		East Point	GA	30344

Center					
South GA Medical Center	PO Box 1727		Valdosta	GA	31603-1727
South Lake Hospital	1099 Citrus Tower Boulevard		Clermont	FL	34711
South Miami Hospital	6200 SW 73rd Street		Miami	FL	33143
South Nassau Communities Hospital	One Healthy Way		Oceanside	NY	11572
South Shore Hospital	55 Fogg Road`		South Weymouth	MA	02190-2432
Southeast Alabama Medical Center	1108 Ross Clark Circle		Dothan	AL	36301
Southeast Baptist Hospital	730 North Main Avenue	Suite 409	San Antonio	TX	78205
Southeast Missouri Hospital	1701 Lacey Street		Cape Girardeau	MO	63701
Southern Hills Hospital	9300 West Sunset Road		Las Vegas	NV	89148
Southern Hills Medical Center	391 Wallace Road		Nashville	TN	37211
Southern New Hampshire Medical Center	8 Prospect Street		Nashua	NH	03060
Southern Ohio Medical Center	1805 27th Street		Portsmouth	OH	45662
Southern Regional Medical Center	11 Upper Riverdale Road SW		Riverdale	GA	30274
Southside Hospital	301 East Main Street		Bayshore	NY	11706
SouthView Hospital	1997 Miamisburg-		Dayton	OH	45459

	Centerville Road				
Southwest General Health Center	18697 Bagley Road		Middleburg Heights	OH	44130-3417
Southwest General Hospital	7400 Barlite Boulevard		San Antonio	TX	78224
Southwest Medical Center	2810 Ambassador Caffrey Parkway		Lafayette	LA	70506
Southwest MS Regional Medical Center	303 Marion Avenue		McComb	MS	39648
Southwest Washington Medical Center	600 NE 92nd Avenue		Vancouver	WA	98664
Southwestern Medical Center	5602 SW Lee Boulevard		Lawton	OK	73505
Spalding Regional Medical Center	601 South 8th Street		Griffin	GA	30224
Sparks Regional Medical Center	1001 Towson Avenue		Fort Smith	AR	72917-7006
Sparrow Health System	1215 East Michigan Avenue		Lansing	MI	48909-7980
Spartanburg Regional Medical Center	101 East Wood Street	Cardiac Cath Lab / 3rd Floor Heart Center	Spartanburg	SC	29303
Spectrum Health	100 Michigan Street NE	MC 037, Rm 3825A	Grand Rapids	MI	49503-2560
Spring Branch Medical Center	8850 Long Point Road		Houston	TX	77055
Spring Valley	5400 S. Rainbow Boulevard		Las Vegas	NV	89118

Hospital					
Springhill Memorial Hospital	3719 Dauphin Street		Mobile	AL	36608
SSM St. Joseph Health Center	300 First Capitol Drive		St. Charles	MO	63301
St. Anthony Central Hospital	4231 W. 16th Avenue		Denver	CO	80204-1335
St. Anthony North Hospital	4231 W. 16th Avenue		Denver	CO	80204
St. James Hospital and Health Centers	3800 West 203rd Street Suite 207		Olympia Fields	IL	60461
St. Joseph Hospital	700 Broadway		Fort Wayne	IN	46802
St. Joseph Hospital-Oakland	44405 Woodward Avenue		Pontiac	MI	48341-5023
St. Joseph Medical Center	1717 South J Street		Tacoma	WA	98405-4933
St. Josephs Hospital	69 W. Exchange Street		St Paul	MN	55102
St. Joseph Hospital Health Center	301 Prospect Avenue		Syracuse	NY	13203
St. Luke's Cornwall Hospital	70 DuBois Street		Newburgh	NY	12550
St. Mary's Health Care Systems	1230 Baxter Street		Athens	GA	30606
St. Mary's Hospital	400 North Pleasant		Centralia	IL	62801
St. Mary's Regional Medical Center	305 S. 5th Street		Enid	OK	73701
St. Agnes Hospital	900 Caton Avenue		Baltimore	MD	21229
St. Agnes Hospital	430 E. Division Street		Fond du lac	WI	54935

St. Alexius Medical Center	1555 Barrington Road		Hoffman Estates	IL	60194-1018
St. Alphonsus Regional Medical Center	1055 N. Curtis Road		Boise	ID	83706
St. Anthony Hospital	1000 N. Lee Avenue		Oklahoma City	OK	73102
St. Anthony Memorial Health Centers	301 N. Homer Street	Cath Lab	Michigan City	IN	46360
St. Anthony's Health Care	1200 7th Avenue North	MS 2019	St. Petersburg	FL	33705
St. Anthony's Medical Center	10010 Kennerly Road		St. Loius	MO	63128-2106
St. Barnabas Medical Center	94 Old Short Hills Road		Livingston	NJ	07039
St. Bernards Medical Center	225 E. Jackson Avenue		Jonesboro	AR	72401
St. Catherine Hospital East Chicago	1500 South Lake Park Avenue		Hobart	IN	46342
St. Catherine of Siena	50 Route 25A		Smithtown	NY	11787
St. Charles Hospital	200 Belle Terre Road		Port Jefferson	NY	11777
St. Charles Medical Center	2500 North East Neff Road		Bend	OR	97701-6015
St. Clair Hospital	St. Clair Hospital	1000 Bower Hill Road	Pittsburgh	PA	15243
St. Cloud Regional Medical Center	2906 17th Street		St. Cloud	FL	34769

St. David's Medical Center	919 East 32nd Street		Austin	TX	78765
St. David's South Austin Hospital	901 W. Ben White Boulevard		Austin	TX	78704
St. Dominic-Jackson Memorial Hospital	969 Lakeland Drive		Jackson	MS	39216
St. Edwards Mercy Medical Center	7301 Rogers Avenue		Ft. Smith	AR	72917-7000
St. Elizabeth Healthcare Florence	7380 Turfway Road		Florence	KY	41042
St. Elizabeth Hospital Medical Center	1501 Hartford Street		Lafayette	IN	47904
St. Francis Hospital	One St. Francis Drive		Greenville	SC	29601
St. Francis Hospital	333 Laidley Street	PO Box 44 Culloden, WV 25510	Charleston	WV	25322
St. Francis Hospital	100 Port Washington Boulevard		Roslyn	NY	11576
St. Francis Medical Center	211 Saint Francis Drive		Cape Girardeau	MO	63703-5049
St. John Medical Center	1923 S. Utica Avenue	Heart Institute Education/ Research	Tulsa	OK	74104
St. John Medical Center	1615 Delaware Street		Longview	WA	98632
St. John Providence Hospital	16001 W. Nine Mile Road		Southfield	MI	48075
St. John West Shore Hospital	29000 Center Ridge Road		Westlake	OH	44145

St. John's Hospital	800 E. Carpenter Street		Springfield	IL	62769
St. John's Hospital	1235 East Cherokee Street		Springfield	MO	65804
St. Johns Regional Medical Center	2727 McClelland Boulevard		Joplin	MO	64804
St. Johns Regional Medical Center	1600 N. Rose Avenue		Oxnard	CA	93030-3722
St. Joseph Hospital	172 Kinsley Street		Nashua	NH	03060
St. Joseph Hospital	360 Broadway		Bangor	ME	04401
St. Joseph Medical Center	2200 E. Washington Street		Bloomington	IL	61701
St. Joseph Medical Center	12th & Walnut Streets		Reading	PA	19603
St. Joseph Medical Center	1401 St. Joseph Parkway		Houston	TX	77002
St. Joseph Medical Center	7601 Olser Drive		Towson	MD	21204
St. Joseph Mercy Hospital	5325 Elliot Drive		Ann Arbor	MI	48106
St. Joseph's Hospital	11705 Mercy Boulevard		Savannah	GA	31419
St. Joseph's Hospital	350 N. Wilmot Road		Tucson	AZ	85711
St. Joseph's Medical Center	127 S. Broadway		Yonkers	NY	10701
St. Josephs Mercy Health Center	300 Werner Drive		Hot Springs	AR	71913
St. Jude Medical Center	101 East Valencia Mesa		Fullerton	CA	92835
St. Luke's Baptist Hospital	730 North Main Avenue	Suite 409	San Antonio	TX	78205

St. Luke's Community Medical Center (The Woodlands)	17200 St. Luke's Way		The Woodlands	TX	77384
St. Luke's Episcopal Hospital	3100 Main Street	MC5-313	Houston	TX	77030
St. Lukes Hospital	363 Highland Avenue		Falls River	MA	02720
St. Lukes Hospital	5901 Monclova Road		Maumee	OH	43537
St. Luke's Hospital	915 E. First Street		Duluth	MN	55805
St. Luke's Hospital & Health Network	801 Ostrum Street	St. Luke's Hospital & Health Network	Bethlehem	PA	18015
St. Luke's Hospital and Health Network (Allentown Campus)	801 Ostrum Street	St. Luke's Hospital & Health Network	Bethlehem	PA	18015
St. Luke's Lakeside Hospital	3100 Main Street 647D	MC 5-313	Houston	TX	77002
St. Luke's Medical Center	2901 West Oklahoma Avenue		Milwaukee	WI	53215-4330
St. Luke's Medical Center	1800 E. Van Buren Street		Phoenix	AZ	85006
St. Luke's Regional Medical Center	2720 Stone Park Boulevard		Sioux City	IA	51104
St. Luke's South Hospital	Saint Luke's Hospital	4401 Wornal Road	Kansas City	MO	64111
St. Luke's Sugar Land Hospital	3100 Main Street Suite 647D		Houston	TX	77002

St. Luke's-Roosevelt Hospital Center	1111 Amsterdam Avenue		New York City	NY	10025
St. Mark's Hospital/ Northern Utah Healthcare Corporation	1200 East 3900 South		Salt Lake City	UT	84124
St. Mary Hospital	1201 Langhorne Newton Road		Langhorne	PA	19047
St. Mary Medical Center	18300 Highway 18		Appple Valley	CA	92307
St. Mary Medical Center	1500 South Lake Park Avenue		Hobart	ID	46342
St. Mary of Nazareth Hospital Center	2233 W. Division Street		Chicago	IL	60622
St. Mary's Health Center	6420 Clayton Road		St. Louis	MO	63117
St. Mary's Hospital	700 S. Park Street		Madison	WI	53715-1849
St. Mary's Medical Center	901 45th Street		West Palm Beach	FL	33407
St. Mary's Medical Center	900 E. Oak Hill Avenue		Knoxville	TN	37917
St. Mary's of Michigan	800 S. Washington Avenue		Saginaw	MI	48601
St. Mary's Regional Medical Center	PO Box 291 Campus Avenue		Lewiston	ME	04243-0291
St. Michael's Medical Center	111 Central Avenue		Newark	NJ	07102

St. Patrick Hospital and Health Sciences Center	500 W. Broadway		Missoula	MT	59802
St. Rose Hospital	27200 Calaroga Avenue		Hayward	CA	94539
St. Tammany Parish Hospital	1202 S. Tyler Street		Covington	LA	70433
St. Vincent Charity Hospital	2351 East 22nd Street		Cleveland	OH	44115
St. Vincent Healthcare	1233 N. 30th Street		Billings	MT	59101
St. Vincent Hospital	2660 10th Avenue South #738		Birmingham	AL	35205
St. Vincent Hospital	835 S. Van Buren Street		Green Bay	WI	54301
St. Vincent Medical Center	2131 W. 3rd Street		Los Angeles	CA	90703
St. Vincent's Medical Center	1800 Barrs Street		Jacksonville	FL	32204
St.Vincent's East	50 Medical Park East Drive		Birmingham	AL	35235-3499
Stamford Hospital Health Sciences Library	30 Shelbourne Road PO Box 9317		Stamford	CT	06904-9317
Staten Island University Hospital	475 Seaview Avenue		Staten Island	NY	10305
Stone Crest Medical Center	200 Stonecrest Boulevard		Smyrna	TN	37167

Stony Brook University Medical Center	3 Technology Drive		East Setauket	NY	11733-4073
Stormont-Vail Regional Medical Center	929 SW Mulvane Street		Topeka	KS	66606
Straub Clinic & Hospital: Cath Lab	888 S. King Street		Honolulu	HI	96813
Stringfellow Memorial Hospital	301 East 18th Street		Anniston	AL	36202
Suburban Hospital	8600 Old Georgetown Road		Bethesda	MD	20814
Summerlin Hospital Medical Center	657 Town Center Drive		Las Vegas	NV	89144
Summit Medical Center	5655 Frist Boulevard		Hermitage	TN	37076
Sunrise Hospital and Medical Center	3186 S. Maryland Parkway		Las Vegas	NV	89109
Sutter Delta Medical Center	3901 Lone Tree Way		Antioch	CA	94509
Sutter Medical Center – Sacramento	3528 Eisenhower Drive		Sacramento	CA	95826
Sutter Medical Center of Santa Rosa	3325 Chanate Road		Santa Rosa	CA	95404
Sutter Roseville Medical Center	One Medical Plaza		Roseville	CA	95661
Swedish American Hospital	1401 E. State Street		Rockford	IL	61104
Swedish Covenant Hospital	5145 N. California Avenue		Chicago	IL	60625

Swedish Health Services	500 17th Avenue #A85C		Seattle	WA	98104
Swedish Medical Center	501 East Hampden Avenue		Englewood	CO	80113
T. J. Samson Community Hospital	1301 North Race Street		Glasgow	KY	42141
Tacoma General Hospital	315 Martin Luther King, Jr. Way		Tacoma	WA	98415
Tahlequah City Hospital	1400 East Downing Street		Tahlequah	OK	74465-1008
Tallahassee Memorial Hospital	1300 Miccosukee Road	Attn: Performance Improvement	Tallahassee	FL	32308
Tampa General Hospital	1 Tampa General Circle		Tampa	FL	33601-1289
Temple University Hospital	3401 North Broad Street	1 PP Cardiology	Philadelphia	PA	19140
Terre Haute Regional Hospital	3901 South 7th Street		Terre Haute	IN	47802
Terrebonne General Medical Center	8166 Main Street		Houma	LA	70360
Texoma Medical Center	8701 Broadway		Merrillville	IN	46410
TexSAn Heart Hospital	6700 IH-10 West		San Antonio	TX	78201-2009
The Christ Hospital	2139 Auburn Avenue		Cincinnati	OH	45219
The George Washington University Hospital	900 23rd Street, NW		Washington	DC	20037

The Good Samaritan Hospital	PO Box 1281	4th and Walnut Streets	Lebanon	PA	17042
The Heart Hospital at Deaconess Gateway, LLC	600 Mary Street		Evansville	IN	47747
The Heart Hospital Baylor Plano	1100 Allied Drive		Plano	TX	75093
The Heart Hospital of Northwest Texas	1501 S. Coulter Street	PO Box 1110	Amarillo	TX	79175
The Hospital at Westlake Medical Center	5656 Bee Caves Road M-302		Austin	TX	78746
The Hospital of West Central Connecticut	100 Grand Street PO Box 100		New Britain	CT	06050
The Indiana Heart Hospital	8075 North Shadeland Avenue		Indianapolis	IN	46250
The Medical Center (TMC)	1000 Dutch Ridge Road		Beaver	PA	15009
The Methodist DeBakey Heart Center	6565 Fannin Street		Houston	TX	77030
The Monroe Clinic	515 22nd Avenue		Monroe	WI	53566
The Nebraska Medical Center	987551 Nebraska Medical Center		Omaha	NE	68198-7551
The Ohio State University Medical Center	410 W. 10th Avenue	142 Doan Hall	Columbus	OH	43210

The Reading Hospital and Medical Center	Sixth Avenue and Spruce Street		West Reading	PA	19611
The Surgery Center on Soncy	3501 Soncy Road Suite 118		Amarillo	TX	79119
The Toledo Hospital	2142 North Cove Boulevard	Jobst Tower Suite 200	Toledo	OH	43606
The Uniontown Hospital	500 West Berkeley Street		Uniontown	PA	15401
The Valley Hospital	223 North Van Dien Avenue		Ridgewood	NJ	07450
The Village Regional Hospital	600 East Dixie Avenue		Leesburg	FL	34748
The Washington Hospital	155 Wilson Avenue		Washington	PA	15301-3398
The Western Pennsylvania Hospital	4800 Friendship Avenue	CVI	Pittsburgh	PA	15224
Thomas Hospital	750 Morphy Avenue		Fairhope	AL	36532
Thomas Jefferson University Hospital	TJUH	111 S. 11th Street Gibbon Building	Philadelphia	PA	19107
Tift Regional Medical Center	PO Box 747	901 E. 18th Street	Tifton	GA	31794
Timpanogos Regional Hospital	750 W. 800 S.		Orem	UT	84057
Tobey Hospital	363 Highland Avenue		Fall River	MA	
Tomball Regional Hospital	605 Holderrieth Boulevard		Tomball	TX	77375
Torrance Memorial Medical Center	3330 Lomita Boulevard		Torrance	CA	90505

Tri-City Medical Center	3909 Waring Road		Oceanside	CA	92056
Trident Regional Medical Center	9330 Medical Plaza Drive		Charleston	SC	29406
Trinity Hospitals	PO Box 5020		Minot	ND	58702
Trinity Medical Center	Attn: CardioVascular Services	800 Montclair Road	Birmingham	AL	35213
Trinity Medical Center West	4000 Johnson Road		Steubenville	OH	43952
Truman Medical Centers	2301 Holmes Street		Kansas City	MO	64108
Tucson Heart Hospital	4888 North Stone Avenue		Tucson	AZ	85704
Tucson Medical Center	5301 E. Grant Road		Tucson	AZ	85712
Tufts Medical Center	750 Washington Street		Boston	MA	02111
Tulane Medical Center	1415 Tulane Avenue		New Orleans	LA	70112
Tuomey Healthcare System Tuomey Regional Medical Center	129 N. Washington Street		Sumter	SC	29150
UC San Diego Medical Center	200 W. Arbor Drive		San Diego	CA	92103
UMASS Memorial Medical Center	55 Lake Ave North		Worcester	MA	01655-0002
Union Hospital	106 Bow Street		Elkton	MD	21921

Union Memorial Hospital	201 E. University Parkway		Baltimore	MD	21218-2891
United Health Services Hospitals/Wilson Regional Medical Center	33 – 57 Harrison Street	Decker 4 Lobby	Johnson City	NY	13790
United Hospital	333 N. Smith Avenue		St. Paul	MN	55102
United Hospital Center, Inc.	PO Box 1680		Clarksburg	WV	53143
United Hospital System	6308 8th Avenue		Kenosha	WI	53143
United Regional Healthcare System	1600 11th Street		Wichita Falls	TX	76301
Unity Health Center	1102 West MacArthur		Shawnee	OK	74804
Unity Hospital	550 Osbourne Road NE		Minneapolis	MN	55432
Unity Hospital	1555 Long Pond Road		Rochester	NY	14626
University Community Hospital	3100 East Fletcher Avenue		Tampa	FL	33613
University Community Hospital Carrollwood Campur	3100 East Fletcher Avenue		Tampa	FL	33613
University of Alabama Hospital	620 19th Street South		Birmingham	AL	35249
University Hospital	234 Goodman Street		Cincinnati	OH	45219
University Hospital	1350 Walton Way		Augusta	GA	30901

University Hospitals Case Medical Center	11100 Euclid Avenue		Cleveland	OH	44106
University Hospitals Geauga Medical Center	13207 Ravenna Road		Chardon	OH	44024
University Hospital UMDNJ	150 Bergen Street		Newark	NJ	07101
University Medical Center	1501 N. Campbell Avenue		Tucson	AZ	85724
University Medical Center	1411 Baddour Parkway		Lebanon	TN	37087
University Medical Center	602 Indiana Avenue		Lubbock	TX	79410
University Medical Center LSU	2390 W. Congress Street		Lafayette	IA	70506
University Medical Center Southern Nevada	1800 W. Charleston Boulevard		Las Vegas	NV	89102
University of Arkansas Medical Sciences	4301 West Markham Street Suite 532		Little Rock	AR	72205
University of California (Santa Monica)	1250 16th Street		Los Angeles	CA	90404
University Of California Davis Medical Center	2315 Stockton Boulevard Main Hospital, Rm 6312		Sacramento	CA	95817
University of Chicago Hospitals	5841 S. Maryland Avenue	University of Chicago Medical Center	Chicago	IL	60637

University of Colorado Hospital Authority	12401 E. 17th Avenue	Mailstop B-132	Aurora	CO	80045
University of CT Health Center/John Dempsey Hospital	263 Farmington Avenue		Farmington	CT	06030
University of Florida (Shands)College of Medicine	1600 SW Archer Road		Gainesville	FL	32610
University of Iowa Hospitals and Clinics	200 Hawkins Drive	UIHC UI Heart	Iowa City	IA	52242
University of Kentucky	800 Rose Street		Lexington	KY	40536
University of Louisville Hospital	530 S. Jackson Street		Loiusville	KY	40202
University of Maryland Medical Center Cardiology	22 S. Greene Street		Baltimore	MD	21201-1544
University of Miami	1400 NW 12th Street		Miami	FL	33136
University of Minnesota Medical Center Fairview	420 Delaware Street SE MMC 815		Minneapolis	MN	55455
University of Mississippi Medical Center	2500 N. State Street		Jackson	MS	39216
University of Missouri Hospital and Clinics	1 Hospital Drive C4003		Columbia	MO	65212
University of New Mexico Hospital	2211 Lomas Boulevard		Albuquerque	NM	87106

University of North Carolina Hospitals	UNC Hospitals	101 Manning Drive CB#7075	Chapel Hill	NC	27514
University of Rochester Medical Center	601 Elmwood Avenue		Rochester	NY	14642
University of Tennessee Medical Center	1924 Alcoa Highway	Box 95	Knoxville	TN	37920-6999
University of Texas Medical Branch at Galveston	301 University Boulevard		Galveston	TX	77555-0294
University of Texas Southwestern-University Hospital	5323 Harry Hines Boulevard		Dallas	TX	75390-9013
University of Toledo Medical Center	3065 Arlington Avenue	DH2261	Toledo	OH	43614
University of Utah Hospitals and Clinics	50 North Medical Drive	4040b	Salt Lake City	UT	84132
University of Virginia Medical Center	2441 Barringer West Complex	PO Box 800134	Charlottesville	VA	22908-0679
University of Washington Medical Center	1959 NE Pacific Street		Seattle	WA	98195-6422

University of Wisconsin Hospital & Clinics	600 Highland Avenue MC 3204		Madison	WI	53792
University Physicians HealthCare	2800 E. Ajo Way		Tucson	AZ	85713
UPMC Mercy	1400 Locust Street		Pittsburgh	PA	15219
UPMC Passavant Hospital	9100 Babcock Boulevard		Pittsburgh	PA	15237
UPMC Presbyterian Hospital	461 Baum Road	2nd Floor	Pittsburgh	PA	15213
UPMC Shadyside Hospital	461 Baum Road	2nd Floor	Pittsburgh	PA	15213
Upper Chesapeake Medical Center, Inc.	500 Upper Chesapeake Drive		Bel Air	MD	21014
Upstate Medical University (SUNY)	750 East Adams Street		Syracuse	NY	13120
USC University Hospital	1500 San Pablo Street		Los Angeles	CA	90033
Utah Valley Regional Medical Center	1034 S. 500 W		Provo	UT	84605
Val Verde Regional Medical Center	801 Bedell Avenue		Del Rio	TX	78840
Valley Care Medical Center	1111 East Stanley Boulevard		Livermore	CA	94550
Valley Medical Center	400 South 43rd Street		Renton	WA	98058
Valley Presbyterian Hospital	15107 Vanowen Street		Van Nuys	CA	91405

Valley Regional Medical Center	Valley Regional Medical Center	100A East Alton Gloor Boulevard	Brownsville	TX	78526
Vanderbilt Heart Institute	1215 21st Avenue	MCE 5th floor	Nashville	TN	37232
Vassar Brothers Medical Center	45 Reade Place		Poughkeepsie	NY	12601
Vaughan Regional Medical Center	1015 Medical Center Parkway		Selma	AL	36701
Venice Regional Medical Center	540 The Rialto		Venice	FL	34285
Verde Valley Medical Center	269 South Candy Lane		Cotttonwood	AZ	86326
Verdugo Hills Hospital	1812 Verdugo Boulevard		Glendale	CA	91208
Via Christi Wichita Health Network	929 N. St. Francis Street		Wichita	KS	67214
Ville Platte Medical Center	800 East Main Street		Ville Platte	LA	70586
Virginia Hospital Center	1701 N. George Mason Drive		Arlington	VA	22205-3698
Virginia Mason Medical Center	1100 Ninth Avenue	X3-CVL	Seattle	WA	98111
WakeMed Cary Hospital	3000 New Bern Avenue		Raleigh	NC	27610
WakeMed Raleigh Campus	3000 New Bern Avenue		Raleigh	NC	27610
Walker Regional Medical Center	3400 Highway 78 E		Jasper	AL	35501

Washington Adventist Hospital	7600 Carroll Avenue		Takoma Park	MD	20912
Washington County Hospital	251 East Antietam Street		Hagerstown	MD	21740
Washington Hospital	2000 Mowry Avenue		Fremont	CA	94538
Washington Hospital Center	110 Irving Street NW Rm 5A14		Washington	DC	20010
Washington Regional Medical Center	1125 N College Avenue		Fayetteville	AR	72703-1994
Waterbury Hospital	PO Box 2153		Waterbury	CT	06722-2153
Watsonville Community Hospital	75 Nielson Street		Watsonville	CA	75076
Waukesha Memorial Hospital	N-17 W24100 Riverwood Drive		Waukesha	WI	53188-1187
Weatherford Regional Medical Center	713 East Anderson Street		Weatherford	TX	76086
Weiss Memorial Hospital	4646 N. Marine Drive		Chicago	IL	60640
Wellmont Holston Valley Medical Center	130 W Ravine Road		Kingsport	TN	37660
Wellstar Cobb Hospital	677 Church Street		Marietta	GA	30066
Wellstar Kennestone Hospital	677 Church Street		Marietta	GA	30066
Wesley Medical Center	550 N. Hillside Street		Wichita	KS	67214
West Florida Hospital	8383 North Davis Highway		Pensacola	FL	32514
West Georgia Medical Center	1514 Vernon Road		LaGrange	GA	30240

West Hills Hospital	7300 Medical Center Drive		West Hills	CA	91307
West Houston Medical Center	12141Richmond Avenue		Houston	TX	77082
West Jefferson Medical Center	1101 Medical Center Boulevard		Marrero	LA	70072
West Penn Hospital Forbes Regional Campus	2570 Haymaker Road		Monroeville	PA	15146
West Suburban Medical Center	3 Erie Court		Oak Park	Il	60302
West Valley Hospital	13677 W. McDowell Road		Goodyear	AZ	85338
West Virginia University Hospitals, Inc.	PO Box 8003	Medical Center Drive	Morgantown	WV	26506-8003
Westchester County Medical Center	95 Grasslands Road Suite 114		Valhalla	NY	10595
Western Arizona Regional Medical Center	2735 Silver Creek Road		Bullhead City	AZ	86442
Western Baptist Hospital	2501 Kentucky Avenue		Paducah	KY	42003
Western Maryland Health System Regional Medical Center	12500 Willowbrook Road	Third Floor Interventional Cardiology	Cumberland	MD	21502-1850
Western Medical Center Santa Ana	1001 North Tustin Avenue		Santa Ana	CA	92705
Western Plains Medical Center	3001 Avenue A		Dodge City	KS	67801

Westside Regional Medical Center	8201 West Broward Boulevard		Plantation	FL	33324
Wheaton Franciscan Healthcare-All Saints, Inc.	WFHC Clinical Data Management and Analysis	5000 West Chambers, M229	Milwaukee	WI	53210
Wheaton Franciscan Healthcare-St. Francis, Inc.	WFHC Clinical Data Management and Analysis	5000 West Chambers, M229	Milwaukee	WI	53210
Wheaton Franciscan Healthcare-St. Joseph, Inc.	WFH Clinical Data Management and Analysis	5000 West Chambers, M229	Milwaukee	WI	53210
Wheaton Franciscan - The Wisconsin Heart Hospital Center	WFH Clinical Data Management and Analysis	5000 West Chambers, M229	Milwaukee	WI	53210
White Memorial Medical Center	1720 Cesar E. Chavez Avenue		Los Angeles	CA	90033
White River Medical Center	1710 Harrison Street		Batesville	AR	72501
William Beaumont Hospita – Troy	44201 Dequindre Road		Troy	MI	48085
William W. Backus Hospital	326 Washington Street		Norwich	CT	06360
Willis-Knighton Pierremont	2600 Greenwood Road		Shreveport	LA	71103
Willis-Knighton Medical Center	2600 Greenwood Road		Shreveport	LA	71103
Wilson Memorial Hospital	915 West Michigan Street		Sidney	OH	45365
Wilson N. Jones Medical Center	500 N Highland Avenue		Sherman	TX	75092

Winchester Medical Center Inc.	220 Campus Boulevard	Suite 313	Winchester	VA	22601
Winter Haven Hospital	20005 Avenue F Northeast		Winter Haven	FL	33881
Winthrop University Hospital	19600 E. 39th Street		Independence	MO	64057
Wise Regional Health System	609 Medical Center Drive		Decatur	TX	76234
Woman's Christian Association Hospital	207 Foote Avenue		Jamestown	NY	14701
Woodland Heights Medical Center	505 S. John Redditt Drive		Lufkin	TX	75904
Wooster Community Hospital	1761 Beall Avenue		Wooster	OH	44691
Wuesthoff Health System	110 Longwood Avenue		Rockledge	FL	32956-5002
Wyckoff Heights Medical Center	374 Stockholm Street	Division of Cardiology - 3rd Floor	Brooklyn	NY	11237
Wyoming Valley Health Care System	575 North River Street		Wilkes-Barre	PA	18764
Yakima Regional Medical Center/Cardiac Center	110 S. 9th Avenue		Yakima	WA	98902
Yakima Valley Memorial Hospital	2811 Tieton Drive		Yakima	WA	98902
Yale New Haven Hospital	20 York Street		New Haven	CT	06510
Yavapai Regional Medical Center	1003 Willow Creek Road		Prescott	AZ	86301

York Hospital	15 Hospital Drive		York	ME	03909
York Hospital	1001 South George Street		York	PA	17405
Yuma Regional Medical Center	2400 S. Avenue A		Yuma	AZ	85364

Addendum X
Active CMS Coverage-Related Guidance Documents
[October Through December 2009]

On September 24, 2004, we published a notice in the **Federal Register** (69 FR 57325), in which we explained how we would develop coverage-related guidance documents. These guidance documents are required under section 731 of the MMA. In our notice, we committed to the public that, "At regular intervals, we will update a list of all guidance documents in the **Federal Register**."

Addendum X includes a list of active CMS guidance documents as of the ending date of the period covered by this notice. To obtain full-text copies of these documents, visit the CMS Coverage Web site at http://www.cms.hhs.gov/mcd/index_list.asp?list_type=mcd_1.

Document Name: Factors CMS Considers in Commissioning External Technology Assessments
Date of Issuance: April 11, 2006

Document Name: Factors CMS Considers in Opening a National Coverage Determination
Date of Issuance: April 11, 2006

Document Name: (Draft) Factors CMS Considers in Referring Topics to the Medicare Coverage Advisory Committee
Date of Issuance: March 9, 2005

Document Name: National Coverage Determinations with Data Collection as a Condition of Coverage: Coverage With Evidence Development
Date of Issuance: July 12, 2006

Addendum XI
List of Special One-Time Notices Regarding National Coverage Provisions
[October Through December 2009]

As medical technologies, the contexts under which they are delivered, and the health needs of Medicare beneficiaries grow increasingly complex, our national coverage determination (NCD) process must adapt to accommodate these complexities. As part of this adaptation, our national coverage decisions often include multi-faceted coverage determinations, which may place conditions on the patient populations eligible for coverage of a particular item or service, the providers who deliver a particular service, or the methods in which data are collected to supplement the delivery of the item or service (such as participation in a clinical trial).

We outline these conditions as we release new or revised NCDs. However, details surrounding these conditions may need to be shared with the public as "one-time notices" in the **Federal Register**. For example, we may require that a particular medical service may be delivered only in the context of a CMS-recognized clinical research study, which was not named in the NCD itself. We would then use Addendum XI of this notice, along with our coverage Web site at http://www.cms.hhs.gov/coverage, to provide the public with information about the clinical research study that it ultimately recognizes.

Addendum XI includes any additional information we may need to share about the conditions under which an NCD was issued as of the ending date of the period covered by this notice.

There were no Special One-Time Notices Regarding National Coverage Provisions published this quarter.

Addendum XII-National Oncologic PET Registry (NOPR)

In January 2005, we issued our decision memorandum on **positron emission tomography** (PET) scans, which stated that CMS would cover PET scans for particular oncologic indications, as long as they were performed in the context of a clinical study. We have since recognized the National Oncologic PET Registry as one of these clinical studies. Therefore, in order for a beneficiary to receive a Medicare-covered PET scan, the beneficiary must receive the scan in a facility that participates in the Registry. The following facilities have met the CMS's requirements for performing PET scans under National Coverage Determination CAG-00181N.

Facility Name	Provider Number	Date Approved	State	Other Information
Barnes-Jewish Hospital Barnes-Jewish Plaza Mailstop # 90-72-374 St. Louis, MO 63110	E40080o	03/07/2006	MO	
Duke University Medical Center PET Facility Room 0402 Duke So. Durham, NC 27710	34003	03/07/2006	NC	Yellow Zone Box 3949
VCU Health System-Molecular Imaging Center Dept of Nuclear Medicine - North Hospital 7th Floor Richmond, VA 23298	490032	03/07/2006	VA	1300 East Marshall-PO Box 980001
Acadiana Oncologic Imaging 2311 Kaliste Saloom Lafayette, LA 70508	5CA64	03/06/2006	LA	

Adler Institute for Advanced Imaging 261 Old York Road Suite 106 Jenkintown, PA 19046		03/07/2006	PA	
Advanced Medical Imaging San Saba 215 N San Saba Suite 107 San Antonio, TX 78207	00BC90	03/07/2006	TX	
Advanced Medical Imaging Stone Oak 540 Oak Centre Suite 100 San Antonio, TX 78258	00BC90	03/07/2006	TX	
Advanced Radiological PET Imaging, PC 2334 30th Avenue Astoria, NY 11102	05677	03/07/2006	NY	Lower Level
Akron Regional PET Scan, LLC 3009 Smith Road Suite 350 Akron, OH 44333	AKID01691	03/07/2006	OH	
American Radiology Services-Owings Mills 21 Crossroads Drive, Suite 100 Owings Mills, MD 21117	434L	03/07/2006	MD	

American Radiology Services-Bethesda 6430 Rockledge Drive, Suite 100 Bethesda, MD 20817	G00000	03/07/2006	MD	
American Radiology Services-Waldorf 3510 Old Washington Road Suite 101 Waldorf, MD 20602	435L	03/07/2006	MD	
American Radiology Services-Columbia 8820 Columbia Parkway 100 Columbia, MD 21045	434L	03/07/2006	MD	
American Radiology Services-Frederick 141 Thomas Johnson Drive Suite 170 Frederick, MD 21702	435L	03/07/2006	MD	
American Radiology Services-Timonium 2080 York Road Suite 160 Timonium, MD 21093	434L	03/07/2006	MD	
Angel Williamson Imaging Center- Ft. Walton Beach 1013-D Mar-Walt Drive Ft. Walton Beach, FL 32547	39953A	03/07/2006	FL	

Angel Williamson Imaging Center-Pensacola 5120 Bayou Boulevard Suite 9 Pensacola, FL 32503	39953	03/07/2006	FL	
Edison Imaging Center 3900 Park Avenue Suite 107 Edison, NJ 08820	AS008835	03/07/2006	NJ	
Avon Medical Diagnostic Center 1480 Center Road Suite C Avon, OH 44011	MC4039571	03/07/2006	OH	
Baltimore Imaging Centers 3708 Mountain Road Pasadena, MD 21122	H476	03/07/2006	MD	
Baptist Hospital PET/CT 1000 West Moreno Street Pensacola, FL 32501	100093	03/07/2006	FL	
Bethesda Health City 2623 S Seacrest Boulevard Boynton Beach, FL 33435	40237	03/07/2006	FL	
PET/CT Imaging at White Marsh 9900 Franklin Square Drive Suite D Nottingham, MD 21236	FMNX01	03/07/2006	MD	
Biomedical Research Foundation PET Imaging Center 1505 Kings Highway Shreveport, LA 71103	5D914	03/07/2006	LA	

BodyScan of Louisville LLC 807 Shelbyville Road Suite 201 Louisville, KY 40222	9372701	03/07/2006	KY	
Bradley Regional PET Imaging Cleveland, TN 37311	3373976	03/07/2006	TN	2305 Chambliss Ave NW
PET Imaging Institute of NJ 1608 Rte 88 West Suite 302 Brick, NJ 08724	070684	03/07/2006	NJ	
Broward PET Imaging Center, LLC 4850 W. Oakland Park Boulevard Suite A Fort Lauderdale, FL 33313	E5709	03/07/2006	FL	
Camelback Imaging 15215 S. 48th Street, #110 Phoenix, AZ 85044	100488	03/07/2006	AZ	
California Imaging and Treatment Center 3000 Oak Road, #111 Walnut Creek, CA 95497	ZZZ27175Z	03/07/2006	CA	
Cancer Care Centers of Brevard 1430 S Pine Street Melbourne, FL 32901	39835	03/07/2006	FL	
Center for Medical Imaging-Florida Hospital. 1922 Salk Avenue Tavares, FL 32778	100057	03/07/2006	FL	

Cancer Center of Colorado Springs 320 E. Fontanero Suite 200 Colorado Springs, CO 80907	79804	03/07/2006	CO	
Centro Sononuclear de Rio Piedras 1028 Los Angeles Street. San Juan, PR 00926	83910	03/07/2006	PR	
Chattanooga Imaging East 1710 Gunbarrel Road Chattanooga, TN 37421	3716643	03/07/2006	TN	
Chester County PET Associates 701 East Chester Marshall Street West Chester, PA 19380	085698	03/07/2006	PA	
Cincinnati PET Scan, LLC-Kenwood 7730 Montgomery Road Suite 120 Cincinnati, OH 45236	311754291	03/07/2006	OH	
Cincinnati PET Scan, LLC Monfort Heights 5575 Cheviot Road Cincinnati, OH 45247	311754291	03/07/2006	OH	
Clinical PET of Hernando 4003 Mariner Boulevard Spring Hill, FL 34609	L13228	03/07/2006	FL	
Clinical PET of Citrus 6140 W Corporate Oaks Drive Crystal River, FL 34429	U0121	03/07/2006	FL	

Clinical PET of Lake City 484 SW Commerce Drive Suite 145 Lake City, FL 32025	V2683	03/07/2006	FL	
Clinical PET of Ocala 3143 SW 32nd Avenue, Suite 100 Ocala, FL 34474	E7179	03/07/2006	FL	
Columbus Regional Hospital 2400 East 17th Street Columbus, IN 47201	150112	03/07/2006	IN	
Concord Imaging 18802 Meisner Drive San Antonio, TX 78258	00126Z	03/07/2006	TX	
Dartmouth Hitchcock Medical Center One Medical Center Drive. Lebanon, NH 03756		03/07/2006	NH	
Dedicated PET Imaging 2315 Sunset Boulevard, Suite E Steubenville, OH 43952	01181	03/07/2006	OH	
Diablo Valley Oncology & Hematology Medical Group 3000 Oak Road, #111 Walnut Creek, CA 94597	ZZZ26796Z	03/07/2006	CA	
Diagnostic Imaging at Baywalk 129 1st Avenue N St. Petersburg, FL 33701	00022	03/07/2006	FL	
DMS Imaging 2101 N. University Drive Fargo, ND 58109		03/07/2006	ND	PO Box 8070

Doylestown PET Associates 599 W. State Street Doylestown, PA 18901	059536	03/07/2006	PA	Suite 202
East Bay Medical Oncology-Hematology Assoc., Inc 3000 Oak Road, #111 Walnut Creek, CA 94597	ZZZ267792	03/07/2006	CA	
East River Medical Imaging 519 East 72 Street Suite 103 New York, NY 10021	W11781	03/07/2006	NY	
El Camino Imaging Center 8020 Constitution Place NE Albequerque, NM 87110	237150	03/07/2006	NM	
Elite Imaging, LLC 2845 Aventura Boulevard Suite 145 Aventura, FL 33180	K3535	03/07/2006	FL	
EPIC Imaging Center 233 NE 102nd Avenue Portland, OR 97220	0000WCGNQ	03/07/2006	OR	
Evergreen Radia 11521 NE 128th Street Kirkland, WA 98034	GAB39931	03/07/2006	WA	
Excel Diagnostics Imaging Clinics 9701 Richmond Avenue Suite 122 Houston, TX 77042	FTA109	03/07/2006	TX	
First Imaging of the Carolinas 30 Memorial Drive Pinehurst, NC 29374	2346997	03/07/2006	NC	

Florida Hospital Advanced Nuclear Imaging PET 328 Spruce Street Orlando, FL 32804	100007	03/07/2006	FL	
Fort Jesse Imaging Center, LLC 2200 Fort Jesse Road Suite 120 Normal, IL 61761	209824	03/07/2006	IL	
Fox Chase Cancer Center 333 Cotman Avenue Philadelphia, PA 19111	390196	03/07/2006	PA	
Frederick Imaging Centers 46B Thomas Johnson Drive Frederick, MD 21702	H476	03/07/2006	MD	
Fusion Diagnostic Group, LLC 1700 California Street Suite 260 San Francisco, CA 94109	00G366470	03/07/2006	CA	
Fusion Imaging Institute 2419 E. Commercial Boulevard Suite 101 Ft. Lauderdale, FL 33308	18281	03/07/2006	FL	
Future Diagnostics Group 254 N. Republic Avenue Joliet, IL 60435	200825	03/07/2006	IL	
Greater Niagra PET, LLC 1 Columbia Drive Suite 3 Niagra Falls, NY 14305	BA0213	03/07/2006	NY	Witmer Park Medical Center
Hematology Oncology Associates of Baton Rouge 4950 Essen Lane Baton Rouge, LA 70809	5C696	03/07/2006	LA	

Gulf Coast Cancer & Diagnostic of Southeast 12811 Beamer Road Houston, TX 77089	149949301	03/07/2006	TX	
Henry Ford, Department of Radiology 2799 W. Grand Boulevard Detroit, MI 48202	230053	03/07/2006	MI	
High Point Regional Health System 601 N. Elm Street High Point, NC 27262	3400040	03/07/2006	NC	
Highlands Oncology Group 3232 N. North Hills Boulevard Fayetteville, AR 27203	5B823	03/07/2006	AR	
Holy Name Hospital 718 Teaneck Road Teaneck, NJ 07666	310008	03/07/2006	NJ	PET/CT Center
Holy Family Memorial Medical Center PO Box 1450 Manitowoc, WI 54221	520107	03/07/2006	WI	2300 Western Ave
Hospital of Saint Raphael 1450 Chapel Street New Haven, CT 05611	070001	03/07/2006	CT	
San Patricio MRI & CT Center 1508 Roosevelt Avenue, Suite 103 San Juan, PR 00920	84997	03/07/2006	PR	

Imaging Center of Hartford Hospital 80 Seymour Street PO Box 5037 Hartford, CT 06102	070025	03/07/2006	CT	
Indian Wells PET/CT Center 74785 Highway 111, #101 Indian Wells, CA 92210	1264523891	03/07/2006	CA	
Imaging Technology Associates 3800 Reservoir Road NW Washington, DC 20007	FDNCX1	03/07/2006	DC	Gorman 2043, PET Scan
San Francisco Magnetic Resonance Center 1180 Post Street San Francisco, CA 94109	ZZZ27498Z	03/07/2006	CA	
Intermountain Medical Imaging 2929 E Magic View Drive Meridian, ID 83642	82-05144-22	03/07/2006	ID	
Jefferson Center City Imaging 850 Walnut Street Philadelphia, PA 19107	66277	03/07/2006	PA	
Kansas City Cancer Center-Kansas 12200 W. 110th Street Overland Park, KS 66210	5650000D	03/07/2006	KS	
Kansas City Cancer Center-Missouri 4881 Goodview Circle Lee's Summit, MO 66064	5650000E	03/07/2006	MO	
Kreitchman PET Center 180 Ft. Washington Avenue, HP3-315 New York, NY 10032	WEM661	03/07/2006	NY	

LakePointe PET 10914 Hefner Pointe Drive Suite 100 Oklahoma City, OK 73120	700522143	03/07/2006	OK	
Lakeshore PET Imaging, LLC 4932 W 95th Street Oak Lawn, IL 60453	200108	03/07/2006	IL	
Larchmont Imaging Associates, LLC 210 Ark Road Mt. Laurel, NJ 08054	517216	03/07/2006	NJ	
Las Cruces PET/CT Imaging 1121 Mall Drive Suite D Las Cruces, NM 88011	300521065	03/07/2006	NM	
Lehigh Valley Diagnostic Imaging PET/CT 1230 S. Cedar Crest Boulevard Suite 104 Allentown, PA 18103	563802	03/07/2006	PA	
LifeScan Louisville, LLC 4046 Dutchmans Lane Louisville, KY 40207	9365601	03/07/2006	KY	
Limerick PET Associates 420 W. Linfield-Trappe Road Limerick, PA 19468	075015	03/07/2006	PA	Suite 3400, Third Floor, Rear
LifeScan Minnesota 6525 France Avenue S Suite 225 Edina, MN 55435	470000014	03/07/2006	MN	
Louisiana PET Imaging of Alexandra, LLC 5419 A Jackson Street Exit Alexandria, LA 71303	5C743	03/07/2006	LA	
LMR PET 12600 Creekside Lane Ft. Meyers, FL 33919	E5725	03/07/2006	FL	

Louisiana PET Imaging of Lake Charles, LLC 1750 Ryan Street Lake Charles, LA 70601	5C905	03/07/2006	LA	
Insight Diagnostic Center-Forest Lane 11617 N. Central Expressway #132 Dallas, TX 75243	FTA016	03/07/2006	TX	
MDI of Thousand Oaks 300 Lombard Street Thousand Oaks, CA 91360	W14186	03/07/2006	CA	
Meadowbrook PET Associates 1695 Huntington Pike Meadowbrook, PA 19046	064866	03/08/2006	PA	
Medical Imaging of Baltimore 6715 N. Charles Street Baltimore, MD 21204	258L	03/08/2006	MD	
Metabolic Imaging of Laredo 2344 Laguna Del Mar Suites 5 & 6 Laredo, TX 78045	FTN029	03/08/2006	TX	
Methodist Hospital PET Imaging Center 301 W. Huntington Drive Suite 120 Arcadia, CA 91007	9511643336	03/08/2006	CA	
Metro Region PET Center at Chevy Chase 5454 Wisconsin Avenue Suite 810 Chevy Chase, MD 20815	724811	03/08/2006	MD	
Clinical PET of St. Charles County 1475 Kisker Road St. Charles, MO 63304	000047047	03/08/2006	MO	

Metro Region PET Center at Woodburn Nuclear Medicine 3289 Woodburn Road Annandale, VA 22003	724811	03/08/2006	VA	
Michiana Hematology-Oncology, PC 100 Navarre Place Suite 5550 South Bend, IN 46601	216950	03/08/2006	IN	
Michigan State University-Radiology 184 Radiology Building East Lansing, MI 48824	OC36350	03/08/2006	MI	
Clinical PET of West County 450 N. New Ballas Road Creve Coeur, MO 63141	000093043	03/08/2006	MO	
Modality Integration Services, Inc. 1854 SW Greenway Circle West Linn, OR 97068		03/08/2006	OR	
Molecular Imaging Center 1733 Curie Drive Suite 305 El Paso, TX 79912	00315U	03/08/2006	TX	
Molecular Imaging of Suburban Chicago, LLC 908 N. Elm Street Suite 110 Hinsdale, IL 60521	212300	03/08/2006	IL	
Montclair Road Imaging LLC 924 Montclair Road Suite 108 Birmingham, AL 35213	000056277	03/08/2006	AL	
Montefiore Medical Center 1695A Eastchester Road Bronx, NY 10461	W06552	03/08/2006	NY	

Neurodiagnostics, PSC 1725 Harrodsburg Road Suite 100 Lexington, KY 40504	0406	03/08/2006	KY	
New Century Imaging 555 Kinderkamack Road Oradel, NJ 07649	085146	03/08/2006	NJ	
Newport Diagnostic Center 1605 Avocado Avenue Newport Beach, CA 92660	W13396	03/08/2006	CA	
Next Generation Radiology PET/CT 560 Northern Boulevard Suite 111 Great Neck, NY 11021	WR6091	03/08/2006	NY	
North Valley MRI and CT 1638 Esplanade Chico, CA 95926	ZZZ247802	03/08/2006	CA	
Northwest Alabama Cancer Center Radiology Services 302 W. Dr. Hicks Boulevard Florence, AL 35630	051552219	03/08/2006	AL	
Northern Kentucky PET Scan, LLC 651 Centre View Boulevard Crestview Hills, KY 41017	311754291	03/08/2006	KY	
Northwest Cancer Center 17323 Red Oak Drive Houston, TX 77090	00D29C	03/08/2006	TX	
Northwestern Memorial Hospital 251 East Huron Street Chicago, IL 60611	140281	03/08/2006	IL	Galter 8-113
Northern Shared Medical Services-Atlantic, IA 1501 East Tenth Street Atlantic, IA 50022	I16068	03/08/2006	IA	Cass County Memorial Hospital

Northern Shared Medical Services-Audubon, IA 515 Pacific Street Audubon, Iowa 50025	I16068	03/08/2006	IA	Audobon County Memorial Hospital
Northern Shared Medical Services- Beloit, KS 400 West Eighth Beloit, KS 67420	130618	03/10/2006	KS	Mitchell County Hospital
Northern Shared Medical Services-Bloomfield, IA 507 North Madison Street Bloomfield, IA 52537	I16068	03/10/2006	KS	Davis County Hospital
Northern Shared Medical Services-Carrollton, MO 1502 North Jefferson Carrollton, MO 64633	000047013	03/10/2006	MO	Carroll County Memorial Hospital
Northern Shared Medical Services-Centerville, IA 1st St. Joseph Drive Centerville, IA 52544	I16068	03/10/2006	IA	Mercy Medical Center
Northern Shared Medical Services-Carthage, IL 160 S. Adams Street Carthage, IL 62321	208196	03/10/2006	IL	Memorial Hospital
Northern Shared Medical Services-Clarinda, IA 823 S. 17th Street Clarinda, IA 51632	I16068	03/10/2006	IA	Clarinda Regional Health Center
Northern Shared Medical Services-Chanute, KS 629 South Plummer Avenue Chanute, KS 66720	130618	03/10/2006	KS	Neosho Memorial Regional Medical Center

Northern Shared Medical Services-Edwardsville, IL 1121 University Drive Edwardsville, IL 62025	208196	03/10/2006	IL	Edwardsville Health Center
Northern Shared Medical Services- El Dorado, AR 700 West Grove Street. El Dorado, AR 71730	5F168	03/10/2006	AR	Medical Center of South Arkansas
Northern Shared Medical Services-Farmington, MO 1212 Weber Road Farmington, MO 63640	000047013	03/10/2006	MO	Mineral Area Regional Medical Center
Northern Shared Medical Services-Janesville, WI 1321 Creston Park Drive Janesville, WI 53545	000092420	03/10/2006	WI	Janesville Occupational Health & Medical Center
Northern Shared Medical Services-Hiawatha, KS 300 Utah Street Hiawatha, KS 66434	130618	03/10/2006	KS	Hiawatha Community Hospital
Northern Shared Medical Services-Keokuk, IA 1600 Morgan Street Keokuk, IA 52632	I16068	03/10/2006	IA	Keokuk Area Hospital
Northern Shared Medical Services-Macomb, IL 525 East Grant Street Macomb, IL 61455	208196	03/10/2006	IL	McDonough District Hospital
Northern Shared Medical Services-Mexico, MO 620 East Monroe Street Mexico, MO 65265	000047013	03/10/2006	MO	Audrain Medical Center
Northern Shared Medical Services-Moberly, MO 1515 Union Avenue Moberly, MO 65270	000047013	03/10/2006	MO	Moberly Regional Medical Center

Northern Shared Medical Services-Mountain Home, AR 899 Burnett Drive Mountain Home, AR 72653	5F168	03/10/2006	AR	Cogburn Cancer Clinic
Northern Shared Medical Services- Poplar Bluff, MO 221 Physicians Park Drive Poplar Bluff, MO 63901	000047013	03/10/2006	MO	Poplar Bluff Medical Partners
Northern Shared Medical Services-Perryville, MO 434 North West Street Perryville, MO 63775	000047013	03/10/2006	MO	Perry County Memorial Hospital
Northern Shared Medical Services- Rolla, MO 1000 West Tenth Street Rolla, MO 65401	000047013	03/10/2006	MO	Phelps Co Regional Medical Center
Northern Shared Medical Services-Virginia, MN 901 Ninth Street North Virginia, MN 55792	470000057	03/10/2006	MN	Virginia Regional Medical Center
Northern Shared Medical Services-Russellville, AR 2504 West Main Street Russellville, AR 72801	5F168	03/10/2006	AR	Russellville Land Co
Northern Shared Medical Services- West Plains, MO 1100 Kentucky Avenue West Plains, MO 65775	000047013	03/10/2006	MO	Ozarks Medical Center
Oakwood Hospital Medical Center 18101 Oakwood Boulevard Dearborn, MI 48124	230020	03/10/2006	MI	

Oakwood Southshore Medical Center 5450 Fort Street Trenton, MI 48183	230176	03/10/2006	MI	
Ocean Medical Imaging Center 21 Stockton Drive Toms River, NJ 08755	158432	03/10/2006	NJ	
Orange County Regional PET Center, LLC 16300 Sand Canyon Avenue Suite 103 Irvine, CA 92618	TP018	03/10/2006	CA	
Orange Advanced Imaging Center 230 Main Street, #101 Orange, CA 92868	TP016A	03/10/2006	CA	
Pacific Coast Imaging-Irvine 250 E Yale Loop Suite A Irvine, CA 92604	WG87478B	03/10/2006	CA	
Pacific Coast Imaging-Newport 3300 West Coast Highway Newport Beach, CA 92663	WG87478	03/10/2006	CA	
Pacific Imaging and Treatment Center 5395 Ruffin Road Suite 202 San Diego, CA 92123	TP126	03/10/2006	CA	
Palm Beach Cancer Institute 1395 State Road 7 Suite 310 Wellington, FL 33414	34754	03/10/2006	FL	
Pennsylvania PET Associates 800 Spruce Street Philadelphia, PA 19107	066282	03/10/2006	PA	Second Floor, Widener Building
PET Center of Western NY 127 North Street Batavia, NY 14020	187140	03/10/2006	NY	

Pet Imaging at CDR 7600 N 15th Street Suite 102 Phoenix, AZ 85020	WCFDG	03/10/2006	AZ	
PET Imaging at the Lake 5000 Hennessy Boulevard Baton Rouge, LA 70809	5C868	03/10/2006	LA	
PET Imaging Center at Harford County 602 S. Atwood Road Suite 201 Bel Air, MD 21014	FMN006	03/10/2006	MD	
PET Imaging Institute of South Florida East 150 N 35th Avenue #665 Hollywood, FL 33021	E3783	03/10/2006	FL	
PET Imaging Institute of South Florida-West 603 N Flamingo Road S-155 Pembroke Pines, FL 33028	E3783	03/10/2006	FL	
PET Scan Arizona-Peoria 13460 N 94th Drive Suite J1 Peoria, AZ 85381	75400	03/10/2006	AZ	
PET Scan Arizona-Phoenix 6036 N 19th Avenue Suite 305 Phoenix, AZ 85015	66860	03/10/2006	AZ	

PET/CT Diagnostic Medical Imaging, PC 1200 Waters Place Suite M108 Bronx, NY 10461	W31091	03/10/2006	NY	
Precision Imaging 4416 East West Highway Suite 410 Bethesda, MD 20814	FMN005	03/10/2006	MD	
Preferred PET Imaging of Kansas, LLC 928 N. St. Francis Street Wichita, KS 67214	110693	03/10/2006	KS	
Premium Diagnostics Center 5319 Hoag Drive Suite 130 Elyria, OH 44035	ID01851	03/10/2006	OH	
PET Center Ft. Worth 800 W. Magnolia Avenue Fort Worth, TX 76104	0J062	03/10/2006	TX	Suite 100
Radiology Associates, LLP 6001 S. Staples Street Corpus Christi, TX 78413	00E816	03/10/2006	TX	
S. Arlington Imaging Center 4601 Matlock Road Arlington, TX 76018	0J062	03/10/2006	TX	
Radiology Group Imaging Center, LLC 1970 E. 53rd Street Davenport, IA 52807	16031	03/10/2006	IA	
PET/CT Scan Center Pembroke 11325 Pembroke Square Suite 116 Waldorf, MD 20603	521454775	03/10/2006	MD	
New York MedScan 751 Second Avenue New York, NY 10017	978701	03/10/2006	NY	

Rex Healthcare 4420 Lake Boone Trail Raleigh, NC 27607	340114	03/10/2006	NC	
San Fernando Regional PET Center 6855 Noble Avenue Van Nuys, CA 91405	TP078	03/10/2006	CA	
PET/CT Imaging Center of Northwest Florida 5149 North 9th Avenue Suite 124 Pensacola, FL 32504	U4696	03/10/2006	FL	
Saint Joseph's Hospital-Nuclear Medicine 611 St. Joseph Avenue Marshfield, WI 54449	520037	03/10/2006	WI	
Shared PET Imaging, LLC-Brooklyn, NY 6300 Eight Avenue Brooklyn, NY 11220	97Z661	03/10/2006	NY	
SC Cancer Specialists 25 Hospital Center Boulevard #301 Hilton Head Island, SC 29926	1285633289	03/10/2006	SC	
Shared PET Imaging, LLC-Granger, IN 6901 N. Main Street Granger, IN 46530	232800	03/10/2006	IN	
University Hospital-Cincinnati Eden Avenue & Albert Sabin Way Cincinnati, OH 45219		03/10/2006	OH	
Shared PET Imaging, LLC – Marion, OH 1050 Delaware Avenue Marion, OH 43302	ID01511	03/10/2006	OH	
Shared PET Imaging, LLC-Terre Haute IN	201320	03/10/2006	IN	

3702 South Fourth Street Terre Haute, IN 47802				
South Jersey Radiology Associates, PA 100 Carnie Boulevard Suite B5 Voorhees, NJ 08043	S0429966	03/10/2006	NJ	
Southwest PET/CT Institute-Tucson 3503 N. Campbell Avenue Suite 155 Tucson, AZ 85719	1396736922	03/10/2006	AZ	
Southwest PET/CT Institute-Yuma 1951 W. 25th Street Suite G Yuma, AZ 85364	106077	03/10/2006	AZ	
St. Francis Health Center 1700 SW 7th Street Topeka, KS 66606	17-0016	03/10/2006	KS	
Southwoods PET Scan, LLC 250 Debartolo Place Building B Youngstown, OH 44512	PCN05210036	03/10/2006	OH	
St. Louis PET Centers, LLC 12637 Olive Boulevard Creve Coeur, MO 63376	1861470734	03/10/2006	MO	
St. Vincent's PET Center, LLC 2660 10th Avenue S, POBI Suite 104 Birmingham, AL 35205	051555054	03/10/2006	AL	
Sun Molecular Imaging -Peoria 13090 N. 94th Drive #103 Peoria, AZ 85381	71585	03/10/2006	AZ	
Sun Molecular Imaging -Sun City West 13909 W Camino Del Sol	71585	03/10/2006	AZ	

#101 Sun City West, AZ 85375				
Tarzana Advanced Imaging 5536 Reseda Boulevard Tarzana, CA 91356	TP051A	03/10/2006	CA	
The Methodist Hospital PET Center 6565 Fannin Street MBI-066 Houston, TX 77030	450358	03/10/2006	TX	
Texarkana PET Imaging Institute, LP 1929 Moores Lane Texarkana, TX 75503	FTN008	03/10/2006	TX	
The PET/CT Center of North Florida 5742 Booth Road Jacksonville, FL 32207	K7038P	03/10/2006	FL	
The Washington Hospital 155 Wilson Avenue Washington, PA 15301	390042	03/10/2006	PA	
The PET/CT Scanning Center 235 18th Street, SE Hickory, NC 28602	2881788	03/10/2006	NC	
Thompson Cancer Survival Center PET Imaging Center 9711 Sherrill Boulevard Knoxville, TN 37923	3791106	03/10/2006	TN	
Thunderbird MRI and PET Center 6591 W. Thunderbird Road Suite A-1 Glendale, AZ 85306	79467	03/10/2006	AZ	

Tower Imaging Roxsan 465 N. Roxbury Drive Suite 101 Beverly Hills, CA 90210	TP114	03/10/2006	CA	
Tower Hematology Oncology Medical Group 9090 Wilshire Boulevard Suite 200 Beverly Hills, CA 90211	W11793	03/10/2006	CA	
TRA Medical Imaging 2202 S Cedar Street Suite 200 Tacoma, WA 98405	001055600	03/10/2006	WA	
Trident PET of Fayette 1275 Highway 54 West Suite 102 Fayetteville, GA 30214	47BBBJJ	03/10/2006	GA	
Trident PET of Gwinnett 545 Old Norcross Road Lawrenceville, GA 30045	47BBBGX	03/10/2006	GA	Suite 200
Trident PET of Savannah 7135 Hodgson Memorial Drive Savannah, GA 31406	47BBBKP	03/10/2006	GA	Suite 10A
Tristan Associates 4520 Union Deposit Road Harrisburg, PA 17111	112344	03/10/2006	PA	
Union Square Diagnostic Imaging 144 Fourth Avenue New York, NY 10003	WR7502	03/10/2006	NY	

UCLA–Dept. of Molecular & Medical Pharmacology 10833 Le Conte Avenue Los Angeles, CA 90095	HW13029	03/10/2006	CA	AR-115-CHS
UCLA-Dept. of Molecular & Medical Pharmacology 10833 Le Conte Avenue Los Angeles, CA 90095	HW13029	03/10/2006	CA	AR-115-CHS
University Nuclear Medicine, Inc. 105 Parker Hall Buffalo, NY 14214	14414A	03/10/2006	NY	3435 Main St
University Radiology Group 75 Veronica Avenue Suite 102 Somerset, NJ 08873	425699	03/10/2006	NJ	
Anne Arundel Medical Center 2001 Medical Parkway Annapolis, MD 21401	210023	03/10/2006	MD	
US Imaging Center Corp., LLC 842 Sunset Lake Boulevard Suite 301 Venice, FL 34292	U0331	03/10/2006	FL	
USC PET Imaging Science Center 1510 San Pablo Street Suite 350 Los Angeles, CA 90033	W11874	03/10/2006	CA	
Rolling Oaks Radiology 415 Rolling Oak Drive, Suite 160 Thousand Oaks, CA 91361	W10746	03/10/2006	CA	

Vero Radiology Associates, Inc. 777 37th Street Suite A-103 Vero Beach, FL 32960	97445	03/10/2006	FL	
Ventura Coast Imaging Center 4601 Telephone Road Suite 101 Ventura, CA 93003	W11335	03/10/2006	CA	
Washington Imaging Services, LLC 1135-116th Avenue, NE Bellevue, WA 98004	GAB23386	03/10/2006	WA	
Washington Hospital Center 110 Irving Street, NW Washington, DC 20010	090011	03/10/2006	DC	
Washoe Med Imaging Services at 75 Kirman 75 Kirman Avenue Reno, NV 89502	WCHBB	03/10/2006	NV	
Wesley Long Hospital-Moses Cone Health System 501 North Elam Avenue Greensboro, NC 27403	34-0091	03/10/2006	NC	
Westcoast Radiology 36463 US Highway, 19 N. Palm Harbor, FL 34684	E4187	03/10/2006	FL	
Western Washington Oncology 4525 3rd Avenue SE Lacey, WA 98503	1497749642	03/10/2006	WA	
Windber Medical Center 600 Somerset Avenue Windber, PA 15963	390112	03/10/2006	PA	

Wyoming Valley PET Associates 190 Welles Street Forty Fort, PA 18704	045012	03/10/2006	PA	
Youngstown Regional PET Scan 850 McKay Court Youngstown, OH 44512	Y0ID0174	03/10/2006	OH	
X-RAY Associates at Santa Fe 490 A West Zia Road Suite 130 Santa Fe, NM 87505	2258263	03/10/2006	NM	
Sibley Memorial Hospital 5255 Loughboro Road, NW Washington, DC 20016	090005	03/10/2006	DC	
Lerman Diagnostic Imaging 6511 Fort Hamilton Parkway Brooklyn, NY 11215	16H771	03/10/2006	NY	
XRC Medical Imaging 53940 Carmichael Drive South Bend, IN 46635	187390	03/10/2006	IN	
St. Luke's Hospital 1026 A. Avenue N.E. Cedar Rapids, IA 52406-3026	160045	03/10/2006	IA	P.O. Box 3026
University Imaging at Science Park 110 Science Parkway Suite 100 Rochester, NY 14620	16624A	03/10/2006	NY	
Kadlec Medical Center/Nuclear Medicine Dept. 945 Goethals Street Richland, WA 99352	1972507580	03/10/2006	WA	
Central Georgia PET, LLC 1650 Hardmon Macon, GA 31201	47BBBKC	03/10/2006	GA	

PET/CT Imaging at Swedish Cancer Institute 1221 Madison Street First Floor Seattle, WA 98104	8857387	03/10/2006	WA	
National PET Scan Duval, LLC 425 North Lee Street Jacksonville, FL 32204	E7348	03/10/2006	FL	
National PET Scan Pinellas, LLC 805 Executive Center Drive W St. Petersburg, FL 33702	E7503	03/10/2006	FL	
National PET Scan Dade, LLC 7867 North Kendall Drive Suite 121 Miami, FL 33156	E5427	03/10/2006	FL	
National PET Scan Broward, LLC 6290 North Federal Highway Fort Lauderdale, FL 33308	E5432	03/10/2006	FL	
Scottsdale Medical Imaging, Ltd. 7624 E. Indian School Road Suite 109-1 Scottsdale, AZ 85251	WCFKX	03/10/2006	AZ	
Lakes Regional General Hospital 80 Highland Street Laconia, NH 03246	300005	03/10/2006	NH	
Northern California PET Imaging Center 3195 Folsom Boulevard Sacramento, CA 95816	ZZZ15725Z	03/10/2006	CA	
Northern California PET Imaging Center-Mobile 3195 Folsom Boulevard Sacramento, CA 95816	ZZZ25157Z	03/10/2006	CA	

Northern California PET Imaging Center-VAPA 3801 Miranda Avenue Palo Alto, CA 94304	ZZZ21308Z	03/10/2006	CA	
Advanced Medical Imaging 3548 Route 9 South Old Bridge, NJ 08857	595865	03/10/2006	NJ	
St. Vincent Infirmary Medical Center PET/CT Center 2 St. Vincent Circle Little Rock, AR 72205-5499	04-0007	03/10/2006	AR	
Lincoln Trail Diagnostics 1111 Woodland Drive Elizabethtown, KY 42701	470001408	03/10/2006	KY	
LifeScan Imaging 607 Clifty Street Somerset, KY 42503	7614	03/10/2006	KY	
St. John's Hospital Springfield Nuclear Medicine 1235 E. Cherokee Street Springfield, MO 65804	26-0065	03/10/2006	MO	
City of Hope 1500 E. Duarte Road Duarte, CA 91010	050146	03/10/2006	CA	Dept. of Nuclear Medicine
Hackettstown Regional Medical Center 651 Willow Grove Street Hackettstown, NJ 07840	310115	03/10/2006	NJ	

Imaging Alliance-Nashville PET, LLC 52 White Bridge Road. Nashville, TN 37205	3791068	03/10/2006	TN	
Molecular Imaging of Bradenton 2301 60th Street Court West Suite A Bradenton, FL 34209	U1334	03/10/2006	FL	
Molecular Imaging of Charlotte County 4130 Tamiami Trail Port Charlotte, FL 33952	U1934	03/10/2006	FL	
Imaging For Life 3830 Bee Ridge Road Suite A Sarasota, FL 34233	E6704	03/10/2006	FL	
Seattle Nuclear Medicine/Ultrasound Associates 1229 Madison Street Suite 1050 Seattle, WA 98104	G000158400	03/10/2006	WA	
Columbus Circle Imaging 1790 Broadway, 9th Floor Yonkers, NY10704	W00691	03/10/2006	NY	
Bryn Mawr Imaging Center-PET 100 Lancaster Avenue Wynnewood, PA 19096	473120	03/10/2006	PA	
Beth Israel Deaconess Medical Center 330 Brookline Avenue Boston, MA 02215	220086	03/10/2006	MA	
Boca Raton Community Hospital 800 Meadows Road Boca Raton, FL 33486	100168	03/10/2006	FL	

Centro Tomograficio de PR, Inc. 1409 Ashford Avenue San Juan, PR 00907	0087834	03/10/2006	PR	
Comprehensive Cancer Centers of Nevada 3730 S. Eastern Avenue Las Vegas, NV 89109	WCHCX	03/10/2006	NV	
Grossman Imaging Center of CMH 2151 E. Gonzales Road Suite 101 Oxnard, CA 93036	W17252	03/10/2006	CA	
Cookeville Regional Medical Center 142 W. 5th Street Cookeville, TN 38501	440059	03/10/2006	TN	
Instituto Central de Diagnostico, Inc. 1er. Floor Oncologic Hospital San Juan, PR 00928	007835	03/10/2006	PR	PR Medical Center
Mercy Medical Center-Cedar Rapids 701 Tenth Street SE Cedar Rapids, IA 52403	16-0079	03/10/2006	IA	
Midwest Radiologic Imaging-1144217241 4087 Gateway Boulevard Newburgh, IN 47630	1144217241	03/10/2006	IN	
Miami Valley Hospital 1 Wyoming Street Dayton, OH 45409	360051	03/10/2006	OH	

Midwest Radiologic Imaging-214790 4087 Gateway Boulevard Newburgh, IN 47630	214790	03/10/2006	IN	
Midwest Regional PET/CT Center 6001 S. Sharon Avenue Suite #2 Sioux Falls, SD 57108	41406	03/10/2006	SD	
Mission Hospital PET Center 222 Asheland Avenue Asheville, NC 28801	3400002	03/10/2006	NC	
Mobile Molecular Imaging, LLC 100 Memorial Hospital Drive Suite 1E Mobile, AL 36608	1003804345	03/10/2006	AL	
Nebraska Health Imaging 7819 Dodge Street Omaha, NE 68114	098975	03/13/2006	NE	
Montgomery Metabolic & Memory Imaging Center 7100 University Court Montgomery, AL 36117	057554625	03/13/2006	AL	
Orange County Diagnostic Radiology, Inc. 17150 Euclid Street Suite 101 Fountain Valley, CA 92708	TD057	03/13/2006	CA	
Northwest PET Imaging 265 N. Broadway Portland, OR 97227	105512	03/13/2006	OR	
Nevada Cancer Institute Medical Group One Breakthrough Way, 10441 W. Twain Avenue Las Vegas, NV 89135	100505	03/13/2006	NV	

Positron Emission Tomography Institute at Hampton 5357 Henneman Drive Norfolk, VA 23513	FVN001	03/13/2006	VA	
Positron Imaging Facility 1311 Record Crossing Road Mail Code 9140 Dallas, TX 75235	UT000F626	03/13/2006	TX	
Premier Diagnostic Imaging 10019 Forest Green Boulevard Louisville, KY 40299	9375201	03/13/2006	KY	
Positron PET/CT of the Southern Tier 169 Riverside Drive Binghamton, NY 13905	AA1047	03/13/2006	NY	
Radiology Regional Center, PA, Inc.-Naples 700 Goodlette Road Naples, FL 34102	77185	03/13/2006	FL	
Somascan Plaza, Inc. Suite 405 Torre de Plaza Plaza Las Americas San Juan, PR 00917	0089178	03/13/2006	PR	
Somascan, Inc. Jose Marti #56 San Juan, PR 00917	0082435	03/13/2006	PR	
Southern Indiana Radiological Associates 500 Landmark Avenue Bloomington, IN 47403	214160	03/13/2006	IN	
Southern Illinois Cancer Center 10286 Fleming Road Carterville, IL 62918	643740	03/13/2006	IL	
South Nassau PET One Healthy Way Oceanside, NY 11572	97z851	03/13/2003	NY	

Southwest Diagnostic Center for Molecular Imaging 8440 Walnut Hill Lane Suite 100 Dallas, TX 75231	FTN-015	03/13/2006	TX	
St. Mary's Health Systems 900 E. Oakhill Avenue Knoxville, TN 37917	440120	03/13/2006	TN	
Tower Diagnostic Center 4719 N. Habana Avenue Tampa, FL 33614	00169	03/13/2003	FL	
Torrance Morial Medical Center 3330 Lomita Boulevard Torrance, CA 90505	050351	03/13/2006	CA	
University of Colorado Hospital (AOP) 1635 N. Ursula Street Aurora, CO 80045	06-0024	03/13/2006	CO	
William Beaumont Hospital-Royal Oak 3601 West 13 Mile Road Royal Oak, MI 48073-6769	23030	03/13/2006	MI	
Esther Quijoy Catalya, M.D. 3000 Oak Road #111 Walnut Creek, CA 94597	00A449120	03/13/2006	CA	
Valley PET Institute 311 S. Ham Lane Lodi, CA 95242	00C283720	03/13/2006	CA	
Dan Ben-Zeev, M.D. 3000 Oak Road #111 Walnut Creek, CA 94597	00G129831	03/13/2006	CA	
Midwest Center for Advanced Imaging 1307 Macom Drive Naperville, IL 60564	L72461	03/13/2006	IL	

Crittenton Hospital Medical Center 1101 W. University Drive Rochester, MI 48307	230054	03/13/2006	MI	
Medical Specialists of Palm Beaches, Inc. 5700 Lake Worth Road Suite 204 Lake Worth, FL 33463	33941A	03/13/2006	FL	
PET Medical Imaging Center 3264 North Evergreen Drive Grand Rapids, MI 49525	0P02650	03/13/2006	MI	
Radiology Regional Center, PA, Inc.-RPET 6100 Winkler Road Suite A Fort Myers, FL 33919	77185	03/13/2006	FL	
Good Samaritan Hospital 520 S. 7th Street Vincennes, IN 47591	150042	03/13/2006	IN	
Central Indiana Cancer Center 6845 Rama Drive Indianapolis, IN 46219	065910	03/13/2006	IN	
Decatur PET Imaging 2774 W. Decatur Road Decatur, GA 30033	47BBBLP	03/13/2006	GA	
Community Memorial Hospital, Medical Imaging 855 S. Main Street Oconto Falls, WI 54154	00439MPN	03/13/2006	WI	
Olympic Radiology 2700 Clare Avenue Bremerton, WA 98310	000242100	03/13/2006	WA	
Capitol Imaging 3161 L Street Sacramento, CA 95816	1285615294	03/13/2006	CA	

National Medical Imaging-Bryn Mawr 574 W. Lancaster Avenue Bryn Mawr, PA 19010	024513	03/13/2006	PA	
National Medical Imaging-Langhorne 2 Doublewoods Road Suite B Langhorne, PA 19047	024513	03/13/2006	PA	
National Medical Imaging-Philadelphia 1903-05 South Broad Street Philadelphia, PA 19148	024513	03/13/2006	PA	
University of VA Health System, Radiology 1215 Lee Street Charlottesville, VA 22908	490009	03/13/2006	VA	
Florida Institute for Advanced Diagnostic Imaging 9238 US 19 Port Richey, FL 34668	59-3475930	03/13/2006	FL	
Roseville PET & Nuclear Medicine Imaging 2241 Douglas Boulevard #110 Roseville, CA 95661	1194706689	03/13/2006	CA	
Memorial Sloan Kettering Cancer Center 1275 York Avenue New York, NY 10021	330154	03/13/2006	NY	
Northeast PET Imaging Center 8400 Roosevelt Boulevard Suite 208 Philadelphia, PA 19152	083723	03/13/2006	PA	Medical Arts Center at Parte Ridge
UAMS PET Center 4301 West Markham Street Little Rock, AR 72205	50528	03/13/2006	AR	

Joliet Oncology-Hematology Assoc., Ltd. 1600 W. Route 6 Morris, IL 60450	205474	03/13/2006	IL	
Saint Luke's Hospital 4323 Wornall Road Kansas City, MO 64111	26-0138	03/13/2006	MO	AH Peet Center
Mercy Medical Center 1320 Mercy Drive Canton, OH 44708	360070	03/13/2006	OH	
Dayton Medical Imaging Center 7901 Schatz Pointe Drive Dayton, OH 45459	US1D00231	03/13/2006	OH	
Community Radiology of Virginia 2000 Leatherwood Lane Bluefield, VA 24605	FVA002	03/13/2006	VA	
Bab Radiology-Huntington 75 East Main Street Huntington, NY 11743	W1L612	03/13/2006	NY	
Bab Radiology-Hauppauge 521 Route 111 Suite 312 Hauppauge, NY 11788	W1L601	03/13/2006	NY	
Center for Diagnostic Imaging-37 5775 Wayzata Boulevard #190 St. Louis Park, MN 55416	470000037	03/13/2006	MN	
Center for Diagnostic Imaging 5775 Wayzata Boulevard Suite 190 St. Louis Park, MN 55416	C01307	03/13/2006	MN	
Center for Diagnostic Imaging-Mendota Heights 910 Sibley Memorial Highway Mendota Heights, MN 55118	470000038	03/13/2006	MN	

Huntsville Hospital Imaging Center 1963 Memorial Parkway Huntsville, AL 35801	010039	03/13/2006	AL	
Long Beach PET Imaging Center 2888 Long Beach Boulevard Suite 110 Long Beach, CA 90806	TG167	03/13/2006	CA	
Highway Imaging Associates, LLP 2095 Flatbush Avenue Brooklyn, NY 11234	W10671	03/13/2006	NY	
St. Vincent Hospital PO Box 13508 Green Bay, WI 54307	520075	03/13/2006	WI	
Park South Imaging Center 6215 21st Avenue West #A Bradenton, FL 34209	E1858	03/13/2006	FL	
Mary Bird Perkins Cancer Center 4950 Essen Lane Baton Rouge, LA 70809	57290	03/13/2006	LA	
Boston Diagnostic Imaging 398 Altamonte Drive Altamonte Springs, FL 32701	E3510	03/13/2006	FL	
Sioux Valley Hospital Medical Center 1305 W. 18th Street Sioux Falls, SD 57117	430027	03/13/2000	SD	
Indianapolis Regional PET Scan, LLC 3830 Shore Drive Indianapolis, IN 46254	207260	03/13/2006	IN	

St. Joseph's PET Center 1 Mercy Lane Suite 105 Hot Springs, AR 71913	5C739	03/13/2006	AR	
Hinsdale PET Scan, LLC 812 Ogden Avenue Westmont, IL 60559	206271	03/13/2006	IL	
Del Amo PET Imaging Center 3531 Fashion Way Torrance, CA 90501	TP120	03/13/2006	CA	
North Shore PET Imaging Center 85 Herrick Street Beverly, MA 1915	327110	03/13/2006	MA	Beverly Hospital
Robert D. Russo & Associates Radiology, PC PO Box 6128 Bridgeport, CT 06606	C02013	03/13/2006	CT	
Advanced Medical Specialties 9035 Sunset Drive Suite 102 Miami, FL 33173	K7806	05/03/2006	FL	
Baptist M & S Imaging Center-Downtown 215 E. Quincy Street #100 San Antonio, TX 78215	FTA078	05/03/2006	TX	
Community Cancer Center 545 W. Umpqua Street Roseburg, OR 97470	R116571	05/03/2006	OR	
Baptist M & S Imaging Center 7888 Fredericksburg Road San Antonio, TX 78228	FTA078	05/03/2006	TX	

Evanston Northwestern Healthcare-Highland Park 757 Park Avenue West Highland Park, IL 60035	14-0010	05/03/2006	IL	
Grenada Diagnostic Radiology 1300 Sunset Drive Suite U Grenada, MS 38901	470000034	05/03/2006	MS	
Huntsman Cancer Hospital 2000 Circle of Hope Suite 2121 Salt Lake City, UT 84112-5550	460009	05/03/2006	UT	
High Tech Medical Park 11800 Southwest Highway Palos Heights, IL 60463	0703070	05/03/2006	IL	
Cyrus Diagnostic Imaging, Inc. 165 Waymont Court Lake Mary, FL 32746	40586	05/03/2006	FL	
Indiana Regional PET Imaging 7891 Broadway Suite A Merrillville, IN 46410	229400	05/03/2006	IN	
Lancaster PET Imaging 2100 Harrisburg Pike Lancaster, PA 17601	054504	05/03/2006	PA	
James PET/CT Imaging Center 236 Doan Hall Columbus, OH 43210	360242	05/03/2006	OH	410 w. 10th Ave
Mary Lanning Memorial Hospital 715 N. St. Joseph Avenue Hastings, NE 68901	280032	05/03/2006	NE	

Maplewood Cancer Center-MOHPA 1580 Beam Avenue Maplewood, MN 55109	C01828	05/03/2006	MN	
Titusville Area Hospital 406 W. Oak Street Titusville, PA 16354	390122	05/03/2006	PA	
Memorial Hospital 325 S. Belmont Street York, PA 17403	390101	05/03/2006	PA	
Mercy Regional Health Center 1823 College Avenue Manhattan, KS 66502	17-0142	05/03/2006	KS	
Northshore Regional PET Scan, LLC 1464 Waukegan Road Glenview, IL 60025	206272	05/03/2006	IL	
Northwest Indiana PET/CT Center 1505 S. Calument Road Suites 7 & 8 Chesterton, IN 46304	229810	05/03/2006	AL	
Parkway Ventures, Inc. 9000 Franklin Square Drive Baltimore, MD 21237	FMN002	05/03/2006	MD	Franklin Square Hospital
PET Fusion Imaging 3707 New Vision Drive Fort Wayne, IN 46845	190320	05/03/2006	IN	
River Oaks Imaging & Diagnostics PO Box 4346 Houston, TX 77210	FTA059	05/03/2006	TX	Dept 848
Regional PET Scan, LLC-Beachwood 2000 Auburn Road Beachwood, OH 44122	REID02211	05/03/2006	OH	

Regional PET Scan, LLC-Fairview 20455 Lorain Road Fairview Park, OH 44126	REID02211	05/03/2006	OH	
Regional PET Scan, LLC-Ridgepark 7575 Northcliff Avenue Brooklyn, OH 44144	REID02211	05/03/2006	OH	
Saint Francis Hospital 114 Woodland Street Hartford, CT 06105	07-0002	05/03/2006	CT	
St Nicholas Hospital 3100 Superior Avenue Sheboygan, WI 53081	520044	05/03/2006	WI	
Swedish Medical Center 501 E. Hampton Avenue Englewood, CO 80113	060034	05/03/2006	CO	
St Bernards PET Center 225 E. Jackson Avenue Jonesboro, AR 72401	5C658	05/03/2006	AR	
Toledo Regional PET Scan, LLC 3442 Granite Circle Toledo, OH 43617	T0ID01881	05/03/2006	OH	
University MRI 3848 F.A.U. Boulevard Suite 200 Boca Raton, FL 33431	E1765	05/03/2006	FL	
Tucson PET Imaging 5355 E. Erickson Drive Tucson, AZ 85712	WCBBM	05/03/2006	AZ	
Via Christi Oklahoma Regional Medical Center 1900 N. 14th Street Ponca City, OK 74601	370006	05/03/2006	OK	

Christian Hospital 11133 Dunn Road St Louis, MO 63136	260180	05/03/2006	MO	
DRA Imaging PC 1 Columbia Street Poughkeepsie, NY 12601	W18691	05/03/2006	NY	
Cleveland Clinic Star Imaging 921 Jasonway Avenue Columbus, OH 43214	34-1932969	05/03/2006	OH	
Norman PET Associates, LLC 3750 W. Robinson Street Suite 130 Norman, OK 73072	900522224	05/03/2006	OK	
Rhode Island PET Services–St. Josephs 200 High Service Avenue N Providence, RI 02904	479003556	05/03/2006	RI	
Rhode Island PET Services-South County Hospital 100 Kenyon Avenue Wakefield, RI 02879	479003556	05/03/2006	RI	
Rhode Island PET Services-Roger Williams 825 Chalkstone Avenue Providence, RI 02908	479003556	05/03/2006	RI	
Rhode Island PET Services-Landmark 115 Cass Avenue Woonsocket, RI 02895	479003556	05/03/2006	RI	
Forest City Diagnostic Imaging 735 Perryville Road Rockford, IL 61107	546450	05/03/2006	IL	Lower Level 2

New England Molecular Imaging-York 15 Hospital Drive York, ME 03909	479003556	05/03/2006	ME	
Pavilion Imaging 750 Wellington Avenue Grand Junction, CO 81502	060023	05/03/2006	CO	
Lifescan Chicago 2242 W. Harrison Street Chicago, IL 600612	470000014	05/03/2006	IL	
Southeast Medical Imaging 300 Evergreen Drive Suite 210 Glen Mills, PA 19342	092801	05/03/2006	PA	
The Western Pennsylvania Hospital 4800 Friendship Avenue Pittsburgh, PA 15224	390090	05/03/2006	PA	
Southtowns PET/CT 550 Orchard Park Road West Seneca, NY 14224	14422A	05/03/2006	NY	
Main Street Radiology-Bayside 44-01 Francis Lewis Boulevard Bayside, NY 11361	04217	05/03/2006	NY	
Main Street Radiology-Bayside 44-01 Francis Lewis Boulevard Bayside, NY 11361	04217A	05/03/2006	NY	
West VA University Center for Advanced Imaging 1 Medical Center Drive Morgantown, WV 26506	9121131	05/03/2006	WV	PO Box 9236, Health Center South

Twin Lakes Medical Specialist, PA 228 Bucher Drive Mountain Home, AR 72653	5B019	05/03/2006	AR	
Valley Metabolic Imaging, LLC 6121 N Thesta Street Fresno, CA 93710	ZZZ23924Z	05/03/2006	CA	Suite 207
Johnson City Medical Center 400 North State of Franklin Johnson City, TN 37642	440063	05/03/2006	TN	
St Louis University Hospital 3665 Vista Avenue St Louis, MO 63110	000050109	05/03/2006	MO	
Margaret R. Pardee Memorial Hospital 800 North Justice Street Hendersonville, NC 28791	340017A	05/03/2006	NC	
Valley Imaging Partnership 1401 W. Merced Avenue #103 West Covina, CA 91790	TP035	05/03/2006	CA	
Sierra Imaging 155 Calle Portal Sierra Vista, AZ 85635	Z68496	05/03/2006	AZ	
Aspirus Wausau Hospital 333 Pine Ridge Boulevard Wausau, WI 54401	520030A	05/03/2006	WI	
Cancer Care Northwest PET Center 910 W 5th Avenue Spokane, WA 99204	1922072081	05/03/2006	WA	Suite 130

PET/CT Imaging of North Texas 2900 North I-35 Denton, TX 76201	00088Y	05/03/2006	TX	Suite 119
Loyola University Health System 2160 S. First Avenue Maywood, IL 60153	140276	05/03/2006	IL	
St. Elizabeth Medical Center One Medical Village Drive Edgewood, KY 41017	180035	05/03/2006	KY	
Cleveland Clinic 9500 Euclid Avenue Cleveland, OH 44195	9925511	05/03/2006	OH	
Ingalls Family Care Center 6701 159th Street Tinley Park, IL 60477	14-0191	05/03/2006	IL	
PET Fusion Center 4204 Houma Boulevard Metairie, LA 70006	5CB31	05/03/2006	LA	
United Regional Medical Center 1001 McArthur Drive Manchester, TN 37355	440007	05/03/2006	TN	
Joel Bernstein, MD 5395 Ruffin Road Suite 202 San Diego, CA 92123	W18972	05/03/2006	CA	
Hasnat Ahmed, MD 5395 Ruffin Road Suite 202 San Diego, CA 92123	W18370	05/03/2006	CA	

Meridian North Imaging Center 12188 N. Meridian Street Carmel, IN 46280	026010	05/03/2006	IN	Suite 100
Cancer Center Oncology Medical Group 5395 Ruffin Road Suite 202 San Diego, CA 92123	W12245A	05/06/2006	CA	
Firelands Regional Medical Center 1101 Decatur Street Sandusky, OH 44870	360025	05/03/2006	OH	
United Radiology-Greenbelt PO Box 34979 West Bethesda, MD 20827	FMN007	05/03/2006	MD	
Richard Just, MD 5395 Ruffin Road Suite 202 San Diego, CA 92123	W16197	05/03/2006	CA	
Michael Kipper, MD 5395 Ruffin Road Suite 202 San Diego, CA 92123	A24091	05/03/2006	CA	
McLaren Regional Medical Center 401 S. Ballenger Highway Flint, MI 48532	230141	05/03/2006	MI	
United Radiology- Silver Spring PO Box 34979 West Bethesda, MD 20827	FMN007	05/03/2006	MD	

United Radiology-Rockville PO Box 34979 West Bethesda, MD 20827	FMN007	05/03/2006	MD	
St Mary's Health Center 6420 Clayton Road St Louis, MO 63117	260091	05/03/2006	MO	
Bay Regional Medical Center 1900 Columbus Avenue Bay City, MI 48708	230041	05/03/2006	MI	
Lapeer Regional Medical Center 1375 N. Main Street Lapeer, MI 48446	230193	05/03/2006	MI	
Scottsdale Medical Imaging, Ltd.- SW Diagnostics 9003 E. Shea Boulevard Scottsdale, AZ 85260	1902896236	05/03/2006	AZ	
Valley Medical Oncology Consultants, Inc. 3000 Oak Road #111 Walnut Creek, CA 94597	ZZZ29659Z	05/03/2006	CA	
Northwest Community Hospital 800 W Central Road Arlington Heights, IL 60005	36-2340313	05/03/2006	IL	
PET Imaging of Dallas 8333 Douglas Avenue C-20 Dallas, TX 75225	FTN017	05/03/2006	TX	
PET Imaging of Dallas-Northeast 1250 R Northwest Highway Garland, TX 75041	FTN028	05/03/2006	TX	
St Joseph's Regional Medical Center 703 Main Street Paterson, NJ 07503	310019	05/03/2006	NJ	

PET Imaging of Houston 2493-A South Braeswood Blvd. Houston, TX 77030	FTN010	05/03/2006	TX	
Goshen General Hospital 200 High Park Avenue Goshen, IN 46526	150026	05/03/2006	IN	
PET Imaging of ELMC 8550 West 38th Avenue Suite 102 Wheat Ridge, CO 80033	800665	05/03/2006	CO	
PET Imaging of Houston-Southeast 6021 Fairmont Parkway Suite 120 Pasadena, TX 77505	FTN030	05/03/2006	TX	
Peninsula Imaging, LLC 560 Riverside Drive Suite A104 Salisbury, MD 21801	481L	05/03/2006	AL	
Zwanger-Pesiri 126 Hicksville Road Massapequa, NY 11758	W13931	05/03/2006	NY	
Las Calinas PET Imaging, LLP 1110 Cottonwood Lane Irving, TX 75038	FTN019	05/03/2006	TX	Suite 220
Mt Carmel Regional Medical Center 1102 East Centennial Drive Pittsburg, KS 66762	014041	05/03/2006	KS	
Iowa Blood & Cancer Care, PLC 855 A. Avenue NE Cedar Rapids, IA 52402	I6672	05/03/2006	IA	Medical Office Plaza, LL4
Hackensack University Medical Center 30 Prospect Avenue Hackensack, NJ 07601	310001	05/03/2006	NJ	

McLeod PET Imaging Center 800 East Cheves Street Florence, SC 29501	570370242001	05/03/2006	SC	Suite 170
St Alexius Medical Center 900 E. Broadway Avenue Bismarck, ND 58506	35-0002	05/03/2006	ND	PO Box 5510
Center for Diagnostic Imaging 1295 Orange Avenue Winter Park, FL 32789	K0097	05/03/2006	FL	
Charleston Radiologists, PA 9313 Medical Plaza Drive Charleston, SC 29406	1709	05/03/2006	SC	Suite 302
PET Imaging of Houston-West 9525 Katy Freeway Suite 102 Houston, TX 77024	FTN023	05/03/2006	TX	
University Hospitals of Cleveland 11100 Euclid Avenue Cleveland, OH 44106	36-0137	05/03/2006	OH	Mailstop BSHB5056
PET Imaging of Sugar Land 17320 W Grand Parkway S. Suite A Sugar Land, TX 77479	FTN027	05/03/2006	TX	
PET Imaging of Oklahoma City 1000 N. Lincoln Boulevard Suite 250 Oklahoma City, OK 73104	800522283	05/03/2006	OK	
PET Imaging of Tulsa 6711 S. Yale Avenue #104 Tulsa, OK 74136	400522320	05/03/2006	OK	

PET Imaging of The Woodlands 3091 College Park Drive Suite 340 The Woodlands, TX 77384	FTN021	05/03/2006	TX	
Tarrant Diagnostic Imaging 1121 8th Avenue Fort Worth, TX 76104	FTN012	05/03/2006	TX	
Wyandot Memorial Hospital 85 North Sandusky Avenue Upper Sandusky, OH 43351	361329	05/03/2006	OH	
Oregon Health & Science University 3181 SW Sam Jackson Park Road Portland, OR 97229	380009	05/03/2006	OR	
Saint John's Health System 2015 Jackson Street Anderson, IN 46016	150088	05/03/2006	IN	
Hudson Valley PET Imaging, LLC 160 North Midland Avenue Nyack, NY 10960	W1L903	05/03/2006	NY	
Kingston Diagnostic Center 167 Schwenk Drive Kingston, NY 12401	W1L921	05/03/2006	NY	
Appleton Medical Center 1818 N. Meade Street Appleton, WI 54911	520160	05/03/2006	WI	
St. Elizabeth Health Center 1044 Belmont Avenue Youngstown, OH 44501	360064	05/03/2006	OH	
Sinai Hospital of Baltimore 2401 West Belvedere Avenue Baltimore, MD 21215	210012	05/03/2006	MD	

Associates in Radiology of Plattsburgh, NY 762 Route 3 Suite 14 Plattsburgh, NY 12901	33572A	05/03/2006	NY	
Affiliated PET Systems-Rockville 9711 Medical Center Drive Rockville, MD 20850	FDNX01	05/03/2006	MD	
Lake Medical Imaging & Breast Center 1400 US Highway 441 North Suite 510 The Villages, FL 32159	59-3522082	05/03/2006	FL	
Affiliated PET Systems-Silver Spring 1400 Forest Glen Road Silver Spring, MD 20910	FDNX01	05/03/2006	MD	Suite 430
North Texas Clinical PET Institute 3535 Worth Street Suite 150 Dallas, TX 75246	99R339	05/03/2006	TX	
Lake Imaging Center 801 E. Dixie Avenue Suite 104 Leesburg, FL 34748	59-3635297	05/06/2006	FL	
Edwards Comprehensive Cancer Center 1400 Hal Greer Boulevard Huntington, WV 25701	510055	05/03/2006	WV	

Allison Cancer Center 301 North N Street Midland, TX 79701	140414744	05/03/2006	TX	
Clinical PET of Leesburg 8525 US Highway 441 Leesburg, FL 34748	E7179A	05/03/2006	FL	
Greene Medical Imaging, PC 159 Jefferson Heights D-106 Catskill, NY 12414	W25021	05/03/2006	NY	
Caritas PET Imaging, LLC-Norwood Hospital 70 Walnut Street Foxboro, MA 02035	32-7092	05/03/2006	MA	Caritas Norwood Hospital - Foxboro Campus
Caritas PET Imaging, LLC-New England Medical Center 750 Washington Street Boston, MA 02111	32-7092	05/03/2006	MA	Tufts - New England Medical Center
Austin, Radiological Assn.-San Marcos 1348 B Highway 123 South San Marcos, TX 78666	74-1597116	05/03/2006	TX	
ARA Imaging-Rock Creek 2120 N Mays Street #220 Round Rock, TX 78664	20-1651590	05/03/2006	TX	
ARA Imaging-Southwood 1701 W. Ben White Boulevard #170 Austin, TX 78704	20-1651590	05/03/2006	TX	

Elkhart General Hospital 600 East Boulevard Elkhart, IN 46514	15-0018	05/03/2006	IN	
Austin, Radiological Assn.-Midtown 1301 W. 38th Street Suite 100 Austin, TX 78705	74-1597116	05/03/2006	TX	
Caritas PET Imaging, LLC-St. Elizabeth's 736 Cambridge Street Boston, MA 02135	32-7092	05/03/2006	MA	St. Elizabeth's Medical Center
Global PET Imaging, LLC 1800 Hollister Drive Suite G-10 Libertyville, IL 60048	309590	05/03/2006	IL	Grand Oaks Health Center
Caritas PET Imaging, LLC-Carney Hospital 2100 Dorchester Avenue Dorchester, MA 02124	32-7092	05/03/2006	MA	Caritas Carney Hospital
Caritas PET Imaging, LLC-Milton Hospital 92 Highland Street Milton, MA 02186	32-7092	05/03/2006	MA	
Caritas PET Imaging, LLC–St. Anne's Hospital 795 Middle Street Fall River, MA 02721	32-7087	05/03/2006	MA	St. Anne's Hospital
Caritas PET Imaging, LLC-Good Samaritan 235 North Pearl Street Brockton, MA 02301	32-7087	05/03/2006	MA	Caritas Good Samaritan Medical Center
Panhandle PET Imaging 6700 W. 9th Avenue Amarillo, TX 79106	TFN0007	05/03/2006	TX	

PET Imaging of San Francisco 1700 California Street Suite 480 San Francisco, CA 94109	ZZZ-223-782	05/03/2006	CA	
PET/CT Imaging of Berkeley 2855 Telegraph Avenue Suite 100 Berkeley, CA 94705	ZZZ-288-837	05/03/2006	CA	
Western Maryland Health System-Sacred Heart Campus 902 Seton Drive Cumberland, MD 21502	210027	05/03/2006	MD	Western Maryland Health System-Sacred Heart Campus
Desert PET Imaging, LLC 1180 N. Indian Cyn Drive Palm Springs, CA 92262	ZZZ28648Z	05/03/2006	CA	
First PET of Stockton 4744 Quail Lake Drive Stockton, CA 95207	00A484230	05/03/2006	CA	
Utah Cancer Specialist 3838 South 700 East Salt Lake City, UT 84106	57172	05/03/2006	UT	Suite 100
Washington Radiology Associates, PC 2121 K Street, NW Washington, DC 20006	WA409885	05/03/2006	DC	Suite T-120
New Rochelle Radiology Associates, PC 175 Memorial Highway New Rochelle, NY 10801	W05571	05/03/2006	NY	
North Little Rock PET Associates, LLC 3500 Springhill Drive North Little Rock, AR 72117	5F437	05/03/2006	AR	Suite 100

Advanced Imaging Concepts, PL 13063 Cortez Boulevard Brooksville, FL 34613	94774	05/03/2006	FL	
Mansfield Imaging Center 536 S. Trimble Road Mansfield, OH 44906	MAD10921	05/03/2006	OH	
West Tennessee Imaging Center 300 Coatsland Drive Jackson, TN 38305	44-0002	05/03/2006	TN	
Imaging Center of North Central Indiana, Inc. 2201 W. Boulevard Kokomo, IN 46902	224110	05/03/2006	IN	
University of Kansas Hospital 3901 Rainbow Boulevard Kansas City, KS 66160	17-00040	05/03/2006	KS	Division of Nuclear Medicine
PET Imaging of SWLA, LLC 600 Bayou Pines East Lake Charles, LA 70601	5CK63	05/03/2006	LA	Suite A
Community Imaging Partners of Frederick 67 Thomas Johnson Drive Frederick, MD 21702	980M	05/03/2006	MD	
Community Imaging Partners of Olney 18111 Prince Phillip Drive #T-20 Olney, MD 20832	409410	05/03/2006	MD	Community Imaging Partners
The West Clinic, PC 100 N. Humphreys Boulevard Memphis, TN 38120	3704066	05/03/2006	TN	

Imaging Central LLC 7111 W. Central Avenue Toledo, OH 43617	IMID01641	05/03/2006	OH	
Advanced Radiology-Dixon 291 Stoner Avenue Westminster, MD 21157	527L	05/03/2006	MD	
Advanced Radiology-Harford Imaging 104 Plumtree Road Bel Air, MD 21015	527L	05/03/2006	MD	Suite 106
Advanced Radiology-Cross Roads 4801 Dorsey Hall Road Ellicott City, MD 21042	527L	05/03/2006	MD	Suite 101
Advanced Radiology-PET Imaging of MD 1700 Reisterstown Road Baltimore, MD 21208	527L	05/03/2006	MD	Suite 119
Cancer & Blood Disease Center 521 N. Lecanto Highway Lecanto, FL 34461	72840	05/03/2006	FL	
Huntington Outpatient Imaging Center, Inc. 800 S. Fairmount Avenue Pasadena, CA 91105	W1575B	05/03/2006	CA	Suite 120
Universal Imaging, Inc. 4600 Investment Drive Troy, MI 48083	ON69130	05/03/2006	MI	
Berger Health System 1170 North Court Street Circleville, OH 43113	360710	05/03/2006	OH	
Contemporary Imaging-Trenton 1676 Fort Street Trenton, MI 48183	0P23200	05/03/2006	MI	
South Tulsa PET, LLC 7712 S. Yale Avenue Tulsa, OK 74136	800522360	05/03/2006	OK	Ste 100

Cancer Center of the Carolinas 200 Andrews Street Greenville, SC 29601	6526	05/03/2006	SC	Suite 100
OSF Saint Francis Medical Center 530 NE Glen Oak Avenue Peoria, IL 61637	14-0067	05/03/2006	IL	
Sacred Heart-St. Mary's Hospitals, Inc. 2251 Northshore Drive Rhinelander, WI 54501	1100700	05/03/2006	WI	
Capital Region Radiation Therapy & Imaging 3400 W. Truman Boulevard Jefferson City, MO 65109	260047	05/03/2006	MO	PO 150832
University PET/CT Imaging 19 Bradhurst Avenue Hawthorne, NY 10532	W2Y371	05/03/2006	NY	Suite 1200
Aztech Radiology-Apache Trail 1840 W. Apache Trail Apache Junction, AZ 85222	Z72398	05/03/2006	AZ	
Aztech Radiology-Casa Grande 1669 E McMurray Boulevard Casa Grande, AZ 85222	Z25341	05/03/2006	AZ	
Missouri Cancer Associates 105 N. Keene Street Columbia, MO 65201	000012700	05/03/2006	MO	Suite 100
White River Medical Center 1710 Harrison Street Batesville, AR 72501	040119	05/03/2006	AR	
Englewood Hospital & Medical Center 350 Engle Street Englewood, NJ 07631	310045	05/03/2006	NJ	

Regional Imaging & Therapeutic Radiology Services 360 Bard Avenue Staten Island, NY 10310	1023095445	05/03/2006	NY	
Rocky Mountain Cancer Centers-South 7951 E. Maplewood Avenue Suite 300 Greenwood Village, CO 80111	204508	05/03/2006	CO	
Rocky Mountain Cancer Centers-North 7951 E. Maplewood Avenue Suite 300 Greenwood Village, CO 80111	204508	05/03/2006	CO	
Molecular Imaging of Hamilton County-Bethesda 4197 Fulton Road NW, Suite C Canton, OH 44718	MOID01221	05/03/2006	OH	
Molecular Imaging of Hamilton County-Good Sam 4197 Fulton Road NW, Suite C Canton, OH 44718	MOID01221	05/03/2006	OH	
Kettering Medical Center 3535 Southern Boulevard Kettering, OH 45429	360079	05/03/2006	OH	
St. Mary's Hospital 5801 Bremo Road Richmond, VA 23226	540793767	05/03/2006	VA	

Columbus Medical Institute of NY 97-85 Queens Boulevard Rego Park, NY 11374	05679	05/03/2006	NY	
Meadville Medical Center 1034 Grove Street Meadville, PA 16335	39-0113	05/03/2006	PA	
Chambersburg Hospital-Radiology 112 North Seventh Street Chambersburg, PA 17201	390151	05/03/2006	PA	
Oregon Advanced Imaging 881 O'Hare Parkway Medford, OR 97504	R114546	05/03/2006	OR	
Singing River Hospital 2809 Denny Avenue Pascagoula, MS 39581	250040	05/03/2006	MS	
East Texas Medical Center-Tyler 1000 S. Beckham Avenue Tyler, TX 75701	4500833	05/03/2006	TX	
Columbia, St. Mary's Hospital 2025 E. Newport Avenue Columbia Campus Milwaukee, WI 53211	520051	05/03/2006	WI	
Sharon Regional Health System 740 East State Street Sharon, PA 16146	390211	05/03/2006	PA	
Northern Ohio Imaging Center 1900 West River Road Elyria, OH 44035	36-0172	05/03/2006	OH	
Oxford Valley Diagnostic Center 940 Town Center Drive Langhorne, PA 19047	232745550	05/03/2006	PA	Suite F50>

The Emory Clinic 1365 Clifton Road Building C Room Court 048 Atlanta, GA 30322	582030692	05/03/2006	GA	
Alegent Health Bergan Mercy Medical Center 7500 Mercy Road Omaha, NE 68124	280060	05/03/2006	NE	
University Center Imaging 1065 Delaware Avenue Marion, OH 43302	20-3873307	05/03/2006	OH	
Elk Regional Health Center 763 Johnsonburg Road St Mary's, PA 15857	39-0154	05/03/2006	PA	
Health Park Hospital 1636 Higdon Ferry Road Hot Springs, AR 71913	04-0142	05/03/2006	AR	
Johnsonburg Health Center 81 Clarion Road Johnsonburg, PA 15845	39-0104	05/03/2006	PA	
Jane Phillips Medical Center 3500 E. Frank Phillips Boulevard Bartlesville, OK 74006	370015	05/03/2006	OK	
North Main Imaging Center 7650 First Place Suite B Oakwood Village, OH 44146	NEID01521	05/03/2006	OH	
PET Imaging Center of Delaware County-DCMH 501 North Lansdowne Avenue Drexel Hill, PA 19026	390081	05/03/2006	PA	

NEO-PET CRC Imaging 7650 First Place Suite B Oakwood Village, OH 44146	NEID01521	05/03/2006	OH	
PET Imaging Center of Delaware County-Springfield 190 West Sproul Road. Springfield, PA 19064	381080	05/03/2006	PA	
Harper University Hospital 3990 John R Street Detroit, MI 48201	230104	05/03/2006	MI	
Sinai-Grace Hospital 6071 W. Outer Drive Detroit, MI 48235	23-0024	05/03/2006	MI	
Seattle Radiologists APC 1229 Madison Street Seattle, WA 98104	G0001589600	05/03/2006	WA	#900
Huron Valley-Sinai Hospital 1 William Carl Drive Commerce, MI 48382	23-0277	05/03/2006	MI	
East Memphis PET Imaging 6005 Park Avenue Memphis, TN 38119	3374526	05/03/2006	TN	Suite 101B
UPMC-PET Imaging Facility 200 Lothrop Street Pittsburgh, PA 15213	390164	05/03/2006	PA	9th Floor B-Wing PUH
UPMC-PET Imaging Facility 300 Halket Street Pittsburgh, PA 15213	390114	05/03/2006	PA	
Rhode Island Hospital 593 Eddy Street Providence, RI 02903	05-025-8954	05/03/2006	RI	
David C. Pratt Cancer Center 607 South New Bulbs Road St Louis, MO 63141	260020	05/03/2006	MO	

Lewistown Hospital 400 Highland Avenue Lewistown, PA 17044	390048	05/03/2006	PA	
Lawrence Memorial Hospital 325 Maine Street Lawrence, KS 66044	170137	05/03/2006	KS	
Jameson Hospital 1211 Wilmington Avenue New Castle, PA 16105	39-0016	05/03/2006	PA	
Diagnostic Clinic of Houston 1200 Binz Street Houston, TX 77004	76-0203506	05/03/2006	TX	
Arlington Heights Radiology Center, LLC 121 South Wilke Road Arlington Heights, IL 60005	212301	05/03/2006	IL	
Oregon Imaging Center 1200 Hilyard Street Eugene, OR 97401	R0000WCPGH	05/03/2006	OR	#330
Arlington Heights Radiology Center, LLC 121 South Wilke Road Arlington Heights, IL 60005	212301	05/03/2006	IL	
Indiana Univ Radiology Assoc PET Imaging Center 950 W. Walnut Street Room E124 Indianapolis, IN 46202	959090	05/03/2006	IN	
Morristown Memorial Hospital 100 Madison Avenue Morristown, NJ 07962	310015	05/03/2006	NJ	
Baton Rouge Radiology Group 5422 Dijon Drive Baton Rouge, LA 70808	5B039	05/03/2006	LA	

North Texas PET Imaging 3720 South I-35E Denton, TX 76210	752131429	05/03/2006	TX	
Children's Hospital of Michigan PET Center 3901 Beaubien Street Detroit, MI 48201	23-3300	05/03/2006	MI	
Winchester Medical Center 1840 Amherst Street Winchester, VA 22601	490005	05/03/2006	VA	
Decatur Health Imaging, LLC 1123 16th Avenue SE Decatur, AL 35601	051555161	05/03/2006	AL	
Health Imaging Services, LLC 1760 Warnke Circle NE Cullman, AL 35058	051553273HEA	05/03/2006	AL	
PET/CT Imaging of the Mainline 21 Industrial Boulevard Suite 103 Paoli, PA 19301	097715	05/03/2006	PA	
PET Imaging of Brevard 1430 Pine Street Melbourne, FL 32901	39254	05/03/2006	FL	
North Carolina Baptist Hospital Medical Center Boulevard Winston Salem, NC 27157	34-0047	05/03/2006	NC	

St Francis Hospital 34515 9th Avenue S Federal Way, WA 98003	500108	05/03/2006	WA	
Saint Barnabas Outpatient Center 200 S. Orange Avenue Livingston, NJ 07039	440149	05/03/2006	NJ	
PET/CT Imaging of Ramapa Radiology 972 Route 45 Suite 106 Pomona, NY 10970	W21711	05/03/2006	NY	
Medical University of South Carolina PET/CT 169 Ashley Avenue Charleston, SC 29425	420004	05/03/2006	SC	
Akron General Medical Center 300 Wabash Avenue Akron, OH 44307	36-0027	05/03/2006	OH	
New England Molecular Imaging-Mercy Hospital 144 State Road Portland, ME 04103	NE327075	05/03/2006	ME	
New England Molecular Imaging-Penobscot Bay 6 Glenn Cove Drive Rockport, ME 04856	NE327076	05/03/2006	ME	
Center for Outpatient Services-St. Joseph 3900 Hollywood Road St. Joseph, MI 49085	23-0021	05/03/2006	MI	
New England Molecular Imaging-Central Maine 12 High Street Lewiston, ME 04240	NE327076	05/03/2006	ME	

Imaging Consultants, Inc.-Berkshire 8 Conte Drive Pittsfield, MA 01210	327085	05/03/2006	MA	
Imaging Consultants, Inc.-Boston Medical 840 Harrison Avenue Boston, MA 02118	327083	05/03/2006	MA	
Imaging Consultants, Inc.-Boston PET One Brookline, Place Brookline, MA 02445	327083	05/03/2006	MA	
Baptist Memorial Hospital PET Center 6027 Walnut Grove Road Memphis, TN 38120	44-0048	05/03/2006	TN	
Southern Oklahoma PET/CT Imaging 701 E. Robinson Street Norman, OK 73071	90015477	05/03/2006	OK	
Ann G. Fetters Diagnostic Imaging Center 2151 N. Harbor Boulevard Fullerton, CA 92835	050168	05/03/2006	CA	
Pitt County Memorial Hospital 2100 Stantonsburg Road Greenville, NC 27835	56-0585243	05/03/2006	NC	
Inland Imaging, LLC 105 W. 8th Avenue Spokane, WA 99202	AB01749	05/03/2006	WA	Suite 100C
University of Chicago Hospitals 5758 S. Maryland Avenue Chicago, IL 60637	140088	05/03/2006	IL	Room #0150

Birch Medical Imaging Center 20162 SW Birch Street Newport Beach, CA 92660	W19353	05/03/2006	CA	
Tennessee Oncology PET Services 2018 Murphy Avenue Nashville, TN 37203	3709319	05/03/2006	TN	Suite 200
Tennessee PET Scan 1020 N. Highland Avenue Murfreesboro, TN 37130	3791187	05/03/2006	TN	Suite A
Texas Oncology-Harris Center HEB 1615 Hospital Parkway Bedford, TX 76022	00R66C	05/03/2006	TX	Suite 300
Greater Dayton Cancer Center 3120 Governor's Place Boulevard Kettering, OH 45409	9295791	05/03/2006	OH	
Martha Jefferson Hospital 459 Locust Avenue Charlottesville, VA 22902	490077	05/03/2006	VA	
Modern Diagnostic Imaging 600 S. Dobson Road Chandler, AZ 85224	107628	05/03/2006	AZ	Suite B-16
Christiana Care Nuclear Medicine/PET 4755 Ogletown-Stanton Road Newark, DE 19718	080001	05/03/2006	DE	

Advanced Imaging of Port Charlotte, LLC 2625 Tamiami Trail Port Charlotte, FL 33952	K6802	05/03/2006	FL	Suite 1
St. Joseph's Diagnostic Center-MLK 3003 Martin Luther King, Jr. Boulevard Tampa, FL 33067	97779	05/03/2006	FL	
South Carolina Oncology Associates 166 Stoneridge Drive Columbia, SC 29210	6275	05/03/2006	SC	
South Carolina Oncology Associates 166 Stoneridge Drive Columbia, SC 29210	6276	05/03/2006	SC	
Access Health Imaging 5257 Highway 82, East Lake Village, AR 71653	5M809	05/03/2006	AR	
PET/CT Services of Florida-Beverly Hills 3404 N. Lecanto Highway Beverly Hills, FL 34465	V0103	05/03/2006	FL	Beverly Hills Medical Park
PET/CT Services of Florida-Ocala 1541 SW 1st Avenue Ocala, FL 34474	V0103	05/03/2006	FL	Suite 101B
Blanchard Valley Regional Health Center 145 W. Wallace Street Findlay, OH 45840	360095	05/03/2006	OH	

Papastavros Associates Medical Imaging 1701 Augustine Cut-Off Wilmington, DE 19803	1083615561	05/03/2006	DE	
PET Imaging of Willowbrook 13300 Hargrave Road Houston, TX 77070	FTN032	05/03/2006	TX	Suite 130
PET Imaging of Northern Colorado 1915 Wilmington Drive Ft Collins, CO 80528	804621	05/03/2006	CO	Suite 101
Temecula Valley Advanced Imaging 25395 Hancock Avenue Murrieta, CA 92592	ZZZ-150752	05/03/2006	CA	Suite 110
Saint Anthony Memorial Health Center 301 West Homer Street Michigan City, IN 46360	A150015	05/03/2006	IN	
Salina Regional Health Center 400 S. Santa Fe Avenue Salina, KS 67401	170012	05/03/2006	KS	PO Box 5080
Cancer Center of Kansas 818 N. Emporia Street Wichita, KS 67214	110217	05/03/2006	KS	Suite 100
Clinton Crossings Imaging 995 Senator Keating Boulevard Rochester, NY 14618	14439A	05/03/2006	NY	
NSMS-Shelby County 4253 Argosy Court Madison, WI 53714	I16068	05/03/2006	WI	
Verrazano Radiology, PC 256A Mason Avenue Staten Island, NY 10305	200011201	05/03/2006	NY	

Imaging Consultants, Inc.-Brockton Hospital 680 Centre Street Brockton, MA 02301	327085	05/03/2006	MA	
Imaging Consultants, Inc.-Cape Cod 252 Long Pond Drive Harwich, MA 02645	327085	05/03/2006	MA	Fontain Medical Center
Imaging Consultants Inc - Falmouth 100 Ter Hewn Drive Falmouth, MA 02540	327085	05/03/2006	MA	
Imaging Consultants, Inc.-Jordan 275 Sandwich Street Plymouth, MA 02360	327085	05/03/2006	MA	
Imaging Consultants, Inc.-Holyoke 575 Beech Street Holyoke, MA 01040	327085	05/03/2006	MA	
Imaging Consultants, Inc.-Mercy Medical 271 Carew Street Springfield, MA 01089	327085	05/03/2006	MA	
Imaging Consultants, Inc.-Lawrence Memorial 170 Governors Avenue Medford, MA 02155	327083	05/03/2006	MA	
Imaging Consultants, Inc.-Metro West 115 Lincoln Street Framingham, MA 01701	327083	05/03/2006	MA	
Imaging Consultants, Inc.-Milford 14 Prospect Street Milford, MA 01757	327085	05/03/2006	MA	

Imaging Consultants, Inc.-Quincy 114 Whitwell Street Quincy, MA 02196	327083	05/03/2006	MA	
Imaging Consultants, Inc.-Saints Memorial 2 Hospital Drive Lowell, MA 01852	327083	05/03/2006	MA	
Imaging Consultants, Inc.-Truesdale 1030 Presidents Avenue Fall River, MA 02720	327085	05/03/2006	MA	
Imaging Consultants, Inc.-Twin City 76 Summer Street Fitenburg, MA 01420	N/A	05/03/2006	MA	
Imaging Consultants, Inc.-Worcester 20 Worcester Center Boulevard Worcester, MA 01608	327085	05/03/2006	MA	
Sentara Mobile PET/CT-Careplex 5900 Lake Wright Drive Suite B Norfolk, VA 23502	250605	05/04/2006	VA	
Sentara Mobile PET/CT-Lake Wright 5900 Lake Wright Drive Suite B Norfolk, VA 23502	250605	05/04/2006	VA	
Sentara Mobile PET/CT-Princess Anne 5900 Lake Wright Drive Suite B Norfolk, VA 23502	250605	05/04/2006	VA	

Sentara Mobile PET/CT-Williamsburg 5900 Lake Wright Drive Suite B Norfolk, VA 23502	250605	05/04/2006	VA	
Memorial Hospital of South Bend 615 N. Michigan Street South Bend, IN 46601	150058	05/04/2006	IN	
NSMS-Belleville, IL 4253 Argosy Court Madison, WI 53714	208196	05/04/2006	WI	
NSMS-Flora, IL 4253 Argosy Court Madison, WI 53714	208196	05/04/2006	WI	
NSMS-Breese, IL 4253 Argosy Court Madison, WI 53714	208196	05/04/2006	WI	
SSM DePaul Health Center 12303 DePaul Drive St Louis, MO 63044	260104	05/04/2006	MO	
Lutheran Hospital 7950 W. Jefferson Boulevard Fort Wayne, IN 46804	150017	05/11/2006	IN	
Memorial MRI and Diagnostic 1346 Campbell Road Houston, TX 77055	00941U	05/11/2006	TX	
Shields Imaging of Eastern Mass 55 Fogg Road Weymouth, MA 2190	327088	05/11/2006	MA	
Baystate MRI and Imaging Center 3300 Main Street Springfield, MA 1107	327039	05/11/2006	MA	

Advanced Imaging Center 16110 Jog Road, 200 Delray Beach, FL 33446	U2049	05/11/2006	FL	
UMASS Memorial MRI and Imaging Center 214 Shrewsburg Street Worcester, MA 1604	327040	05/11/2006	MA	
RCOA Imaging Services 1108 Minnequa Avenue Pueblo, CO 81004	475748	05/11/2006	CO	
Adventist Health PET/CT-Hanford 450 N. Greenfield Avenue Hanford, CA 93230	ZZZ318852	05/11/2006	CA	
Adventist Health PET/CT-Feather River 5974 Pertz Road Paradise, CA 95969	ZZZ318852	05/11/2006	CA	
Adventist Health PET/CT-Sonora 1000 Greenley Road Sonora, CA 95370	ZZZ318852	05/11/2006	CA	
Sarasota Memorial PET 5350 University Parkway Sarasota, FL 34238	U1775	05/11/2006	FL	
Adventist Health PET/CT-Redbud 18th Ave. at Highway 53 PO Box 6710 Clear Lake, CA 95422	ZZZ318852	05/11/2006	CA	
Adventist Health PET/CT-St. Helena 10 Woodland Road St. Helena, CA 94574	ZZZ318852	05/11/2006	CA	
Adventist Health PET/CT-Ukiah 275 Hospital Drive Ukiah, CA 95482	ZZZ318852	05/11/2006	CA	

Mease Outpatient Imaging 1840 Mease Drive Safety Harbor, FL 34685	100265	05/11/2006	FL	
Bardmoor Outpatient Center 8787 Bryan Dairy Road Largo, FL 33777	00594C	05/11/2006	FL	
Trinity Outpatient Center 2102 Trinity Oaks Boulevard New Port Richey, FL 34655	00594D	05/11/2006	FL	
Walnut Creek Imaging Center 114 La Casa Via, #200 Walnut Creek, CA 94598	ZZZ13902Z	05/11/2006	CA	
Carlisle Imaging Center 1240 S. Ft. Harrison Clearwater, FL 33756	594	05/11/2006	FL	
Valley Radiology Imaging at Samaritan 2581 Samaritan Drive, #100 San Jose, CA 95124	ZZZ139851Z	05/11/2006	CA	
Forest Hills PET Imaging 102-02 Queens Boulevard Forest Hills, NY 11375	06998G	05/11/2006	NY	
Roper LowCountry PET Imaging Center 316 Calhoun Street Charleston, SC 29401	Q326280001	05/11/2006	SC	
Premier PET Imaging of NJ 119 Cherry Hill Road Parsippany, NJ 07054	68433	05/11/2006	NJ	Suite 100
Methodist Medical Center of Illinois 221 NE Glen Oak Avenue Peoria, IL 61636	370661223	05/11/2006	IL	
Medical Imaging of Baltimore 6715 N. Charles Street Baltimore, MD 21204	258L	05/12/2006	MD	

Yagnesh Oza, MD 4117 Velerous Memorial Drive Mt Vernon, IL 62864	212702	05/12/2006	IL	
Moffitt Cancer Center 12902 Magnolia Drive Tampa, FL 33612	100271	05/12/2006	FL	
PrimeMed Imaging 5 Morgan Highway Suite 7 Scranton, PA18505	260	05/12/2006	PA	Morgan Medical Complex
Rockville PET Imaging, PC 119 North Park Avenue Rockville Centre, NY 11570	WTC601	05/12/2006	NY	Suite 101
Porter Adventist Hospital 2525 South Downing Street Denver, CO 80210	60064	05/12/2006	CO	
Rapid City Regional Hospital Medical Imaging Services 353 Fairmont Boulevard Rapid City, SD 57701	43007	05/12/2006	SD	
Advanced Radiolgy Consultants 56 Quarry Road Trumbull, CT 06611	C02747	05/12/2006	CT	
Northeastern PA Imaging Center 2601 Stafford Avenue Scranton, PA 18505-0305	475385	05/12/2006	PA	PO BOX 3305
Billings MRI Center 1041 North 29th Street Billings, MT 59101-1075	81030	05/12/2006	MT	
Aurora St. Luke's Medical Center 2900 W. Oklahoma Avenue Milwaukee, WI 53215	520138	05/12/2006	WI	Nuclear Medicine Department

Memorial & St. Elizabeth's Healthcare Services, LLC 4000 N. Illinois Lane Swansea, IL 62226	201339	05/12/2006	IL	PET/CT Imaging Center
Palm Beach Cancer Institute-West Palm Beach 1309 North Flagler Drive West Palm Beach, FL 33401-2710	34754	05/12/2006	FL	
Overlook Hospital 99 Beauvoir Avenue Summit, NJ 07902	8772966189	05/12/2006	NJ	
Ashland Bellefonte Cancer Center 122 Saint Christopher Drive Ashland, KY 41101	2150	05/12/2006	KY	
Bryn Mawr Imaging Center 101 S. Bryn Mawr Avenue Bryn Mawr, PA 19010	473120	05/12/2006	PA	
Oncology Alliance 1055 N. Mayfair Road Suite 100 Wauwatosa, WI 53220	32836000	05/12/2006	WI	
Shared PET Maimonides 6300 Eighth Avenue Brooklyn, NY 11220	97Z661	05/12/2006	NY	
Hoboken Radiology, LLC 79 Hudson Street Suite 100 Hoboken, NJ 07030	80395	05/12/2006	NJ	
Akron City Hospital 525 E. Main Street Akron, OH 44309	360020	05/12/2006	OH	

Park Avenue Radiologists, PC 525 E. Main Street Rome, GA 30165	W21771	05/12/2006	NY	
Comprehensive Blood & Cancer Center 6501 Truxtun Avenue Bakersfield, CA 93309	zzz238732	05/12/2006	CA	
Rome Imaging Center 309 West 10th Street Rome, GA 30165	GRP1221	05/12/2006	GA	
Hawaii PET Imaging 2230 Liliha Street Honolulu, HI 96817	54537	05/12/2006	HI	
Imaging Consultants, Inc. at Henry Heywood Hospital 242 Green Street Gardner, MA 01440	327085	05/12/2006	MA	
Imaging Consultants, Inc. at Nashoba Valley Medical Center 200 Groton School Road Ayer, MA 01432	327085	05/12/2006	MA	
Rhode Island PET Services at Memorial Hospital 111 Brewster Street Pawtucket, RI 2860	479003556	05/12/2006	RI	
Osceola Cancer Center 737 W. Oak Street Kissimmee, FL 34741	1629034202	05/12/2006	FL	
Valley Radiologists, Ltd.-Paseo II Office 5605 W. Eugie Avenue Suite 110 Glendale, AZ 85304	1902896236	06/13/2006	AZ	
Southeast GYN, Oncology PET 5210 Belfort Road Suite 130 Jacksonville, FL 32256	45542	06/13/2006	FL	

The Johns Hopkins PET Center 600 N. Wolfe Street Baltimore, MD 21287	210009	06/13/2006	MD	Nelson Basement
Maklansky, Grunter, Kurzban, Cohen, Zimmer, Hyman 165 East 84th Street New York, NY 10028	W20393	06/13/2006	NY	
Methodist Medical Center of Illinois 112 Crescent Avenue Peoria, IL 61636	370661223	06/13/2006	IL	
Phoebe Putney Memorial Hospital 417 Third Avenue PO Box 1828 Albany, GA 31702-1828	110007	06/13/2006	GA	
Eiber Radiology/PET Premier Imaging 21 West 49th Street Hialeah, FL 33012	k3166	06/13/2006	FL	
Botsford Hospital 28050 Grand River Avenue Farmington Hills, MI 48336	230151	06/13/2006	MI	
Middletown Regional Hospital 105 McKnight Drive Middletown, OH 45044	360076	06/13/2006	OH	
Waukesha Memorial Hospital 725 American Avenue Waukesha, WI 53188	390910727	06/13/2006	WI	
Battle Creek Health System 300 North Avenue Battle Creek, MI 49016	230075	06/13/2006	MI	

Orlando Regional Medical Center 1414 Kuhl Avenue Orlando, FL 32806	100006	06/13/2006	FL	
NorthEast Medical Center 1065 NorthEast Gateway Court NE Concord, NC 28025	340001	06/13/2006	NC	
Premier Medical Imaging 7651 Stagers Loop Delaware, OH 43015	9912921	06/13/2006	OH	
Advanced Radiolgy Consultants 15 Corporate Drive Trumbull, CT 6611	C02747	06/13/2006	CT	
Advance PET Imaging 23 Technology Drive East Setauket, NY 11733	46a401	06/13/2006	NY	
Premier PET Imaging of Wichita 500 S. Main Street Suite B Wichita, KS 67202	110682	06/13/2006	KS	
Health Center Northwest 320 Sunnyview Lane Kalispell, MT 59901	270087	06/13/2006	MT	
Olympic Medical Center 844 N. 5th Avenue Sequim, WA 98382	500072	06/13/2006	WA	
Premier PET Imaging of Jacksonville 5210 Belfort Road Suite 130 Jacksonville, FL 32256	K3166	06/13/2006	FL	
PET/CT Imaging of San Jose 2211 Moorpark Avenue Suite 220 San Jose, CA 95128	ZZZ19866Z	06/13/2006	CA	

The Reading Hospital and Medical Center 6th and Spruce Streets West Reading, PA 19611	390044	06/13/2006	PA	
Julia Rackley Perry Memorial Hospital 530 Park Avenue East Princeton, IL 61356	141337	06/13/2006	IL	
Ashland Bellefonte Cancer Center 122 Saint Christopher Drive Ashland, KY 41101	2150	06/13/2006	KY	
Tower Imaging BBD 14231 Bruce B Down Boulevard Tampa, FL 33613	169	06/13/2006	FL	
VyMed Diagnostic Imaging Tampa, LLC 10010 N. Dale Mabry Suite 160 Tampa, FL 33618	U4068	06/13/2006	FL	
Texas Oncology Cancer Center Sugar Land 1350 First Colony Boulevard Sugar Land, TX 77479	00073F	06/13/2006	TX	
Samaritan North Health Center 9000 N. Main Street Dayton, OH 45415	360052	06/13/2006	OH	
The PET Center of Oxford 1612 US Highway 78 East Suite 102 Oxford, AL 36203	51554888	06/13/2006	AL	
Shared PET Mem Lighthouse 6901 N. Main Street Granger, IN 46530	232800	06/13/2006	IN	
Shared PET Hope Cancer Center 3702 South Fourth Street Terre Haute, IN 47802	201320	06/13/2006	IN	

Athens Regional Medical Center 1199 Prince Avenue Athens, GA 30606	110074	06/13/2006	GA	
Muskogee PET & Nuclear Imaging 3300 Chandler Road Suite #106 Muskogee, OK 74403	400522529	06/13/2006	OK	
Lubbock Imaging Center 4011 19th Street Lubbock, TX 79410	00027K	06/13/2006	TX	
Memorial Medical Center 701 N. First Street Springfield, IL 62781	140148	06/13/2006	IL	
Hamamatsu/Queen's PET Imaging Center 1301 Punchbowl Street Honolulu, HI 96813		06/13/2006	HI	
Aurora BayCare Medical Center 2845 Greenbrier Road Green Bay, WI 54308	520193	06/13/2006	WI	
Medical Center of Plano 3901 W. 15th Street Plano, TX 75002	450651	06/13/2006	TX	
Carolinas Medical Center 1000 Blythe Boulevard Charlotte, NC 28203	340113	06/13/2006	NC	
Redwood Regional Medical Group d.b.a. Santa Rosa Radiology 121 Sotoyome Street Santa Rosa, CA 95405	680344865	06/13/2006	CA	
Boone Hospital Center 1600 East Broadway Columbia, MO 65201	260068	06/13/2006	MO	

River Radiology 45 Pine Grove Avenue Kingston, NY 12401	W30681	06/13/2006	NY	
University of Washington Medical Center 1959 NE Pacific Street Seattle, WA 98195	142700	06/13/2006	WA	
Mid American Imaging-Salem 1987 E. 4th Street Salem, OH 44460	ID00804	06/13/2006	OH	
Piedmont Medical Center 222 S. Herlong Avenue Rock Hill, SC 29732	420002	06/13/2006	SC	
Alliance Imaging-Sparks 1311 South I Street Fort Smith, AR 72817	5F463	06/13/2006	AR	
Radiology Imaging Associates 1825 SE Tiffany Avenue Suite 104 Port St. Lucie, FL 34952	52	06/13/2006	FL	
Mount Sinai Medical Center One Gustave L. Levy Place New York, NY 10029	H23620	06/13/2006	NY	
NSMS-Ottawa, IL 4253 Argosy Court Madison, WI 53714	208196	06/13/2006	WI	
Center for Diagnostic Imaging 1550 E. Chestnut Avenue Vineland, NJ 08360	53290	06/13/2006	NJ	Bldg 4 Suite A
St. Mary Mercy Hospital-Livonia 36475 Five Mile Road Livonia, MI 48154	230002	06/13/2006	MI	
Harold Leever Regional Cancer 1075 Chase Parkway Waterbury, CT 06708	470000025	06/13/2006	CT	

Kentucky Metabolic Imaging 2425 Regency Road Suite B Lexington, KY 40503	9366001	06/13/2006	KY	
Western Baptist Hospital 2501 Kentucky Avenue Paducah, KY 42001	180104	06/13/2006	KY	
St. Anthony Regional Hospital 311 South Clark Street Box 628 Carroll, IA 51401	1720067127	06/13/2006	IA	
Alliance Imaging-Sequoia Hospital 170 Alameda De Las Pulgas Redwood City, CA 94062	ZZZ28890Z	06/13/2006	CA	
Craven Regional Medical Center 2000 Neuse Boulevard New Bern, NC 28560	340131	06/13/2006	NC	
Alliance Imaging-Tri City Medical Center 4002 Vista Way Oceanside, CA 92056	TG281C	06/13/2006	CA	
Alliance Imaging-Yavapai Del Webb Outpatient Center Prescott Valley, AZ 86314	76103	06/13/2006	AZ	3262 Windsong Drive
Saint Vincent's Comprehensive Cancer Center 325 West 15th Street New York, NY 10011	330290	06/13/2006	NY	
Alliance Imaging-Southwest Medical Imaging 3104 Stockton Hill Road Kingman, AR 86401	76103	06/13/2006	AZ	
Alliance Imaging-North Idaho Imaging 700 Ironwood Drive Coeur d'Alene, ID 93814	1790291	06/13/2006	ID	

Froedtert Hospital 9200 W. Wisconsin Avenue Milwaukee, WI 53226	520177	06/13/2006	WI	
Alliance Imaging-Flagstaff Medical Center 1200 N. Beaver Street Flagstaff, AZ 86001	71855	06/13/2006	AZ	
South Florida Oncology and Hematology Consultants 4850 W. Oakland Park Boulevard Lauderdale Lakes, FL 33313	33873	06/13/2006	FL	Suite A
Alliance Imaging- Sierra Vista 300 El Camino Real Sierra Vista, AZ 85635	71855	06/13/2006	AZ	
Alliance Imaging- St. Joseph Eureka 2700 Dolbeer Street Eureka, CA 95501	zzz23046z	06/13/2006	CA	
Alliance Imaging- Corvallis Clinic 3680 NW Samaritan Drive Corvallis, OR 97330	132104	06/13/2006	OR	
Bridgeport Hospital 267 Grant Street Bridgeport, CT 06610	70010	06/13/2006	CT	
Valley Radiologists, Ltd.-Paseo II Office 5605 W. Eugie Avenue Glendale, AZ 85304	1902896236	06/13/2006	AZ	Suite 110
Central Texas Medical Center 1301 Wonder World Drive San Marcos, TX 78666	450272	06/13/2006	TX	

Alliance Imaging-Verde Valley Medical Center 269 S. Candy Lane Cottonwood, AZ 86326	76103	06/13/2006	AZ	
Alliance Imaging-Union Hospital Cecil 106 Bow Street Elkton, MD 21821	FMN008	06/13/2006	MD	
St. Joseph Mercy Hospital – Ann Arbor 5301 E. Huron River Road Ann Arbor, MI 48106	230156	06/13/2006	MI	
Alliance Imaging-Navapache 2200 E. Show Low Lake Show Low, AZ 85901	76103	06/13/2006	AZ	
St. Clare Medical Center 1710 Lafayette Road Crawfordsville, IN 17933	150022	06/13/2006	IN	
Boynton Beach EFL Imaging Center, LLC 2300 S. Congress Avenue Boynton Beach, FL 33426	272376000	06/13/2006	FL	#105
Aurora Medical Center Oshkosh 855 N. Westhaven Drive Oshkosh, WI 54904	590198	06/13/2006	WI	
Southeast GYN, Oncology PET 5210 Belfort Road Jacksonville, FL 32256	45542	06/13/2006	FL	Suite 130

Stockton MRI & Molecular Imaging Medical Center 2320 N. California Street, #2 Stockton, CA 95219	ZZZ290872	06/13/2006	CA	
South Texas Cancer Center 2150 N. Expressway 83 Brownsville, TX 78521	14041756	06/13/2006	TX	
Southwest Cancer Care Medical Group 5395 Ruffin Road San Diego, CA 92123	W4957B	06/13/2006	CA	#202
Radiology Associates of Venice and Englewood, PA 512-516 S. Nokomis Avenue Venice, FL 34285	99390	06/13/2006	FL	
Langlade Memorial Hospital Oncology 112 E. 5th Avenue Antigo, WI 54409	521350	06/13/2006	WI	
RCOA Imaging Services 305 South 5th Street Enid, OK 73701	400522301	06/13/2006	OK	
North Shore Hematology Oncology Associates, PC 235 N. Belle Mead Road East Setauket, NY 11733	W04051	06/13/2006	NY	
Providence Holy Cross Imaging Center 26357 McBean Parkway Suite 155 Santa Clarita, CA 91355	TP129	06/13/2006	CA	
Alaska Open Imaging Center, LLC 6911 DeBarr Road Anchorage, AK 99504	K153149	06/13/2006	AK	

Temecula Valley Nuclear Medicine 25485 Medical Center Drive Murrieta, CA 92562	00A417170	06/13/2006	CA	Suite 102
Hematology Oncology Assoc. of the Treasure Coast 1801 SE Hillmoor Drive Port Saint Lucie, FL 34952	40806	06/13/2006	FL	Suite B-107 (Mobile)
The Center for Cancer and Blood Disorders 800 W. Magnolia Avenue Fort Worth, TX 76104	00L79L	06/13/2006	TX	
Alliance Imaging-South Coast Medical Center 31872 Pacific Coast Highway Laguna Beach, CA 92651	TG281B	06/13/2006	CA	
The Medical Center at Bowling Green 250 Park Street Bowling Green, KY 42101	180013	06/13/2006	KY	PET/CT Center
Johns Hopkins Bayview Medical Center 4940 Eastern Avenue Baltimore, MD 21224	210029	06/13/2006	MD	Imaging Department-Nuclear Medicine
University of Michigan, Department of Radiology 1500 E. Medical Center Drive Ann Arbor, MI 48109	230046	06/13/2006	MI	Box 0028, B1H418 University Hospital
Carmichael Imaging, LLC 4147 Carmichael Road Montgomery, AL 36106	51551742	06/13/2006	AL	
Clearfield Hospital 809 Turnpike Avenue Clearfield, PA 16830	390052	06/13/2006	PA	
Clinical Pet of Hernando 4003 Mariner Boulevard Spring Hill, FL 34609	V2683	06/13/2006	FL	

Booth Radiology 105 Kings Way W. Hurffville-Crosskeys Road Sewell, NJ 08080	39460	06/13/2006	NJ	
Clinical PET of Zepherhills 38044 Daughtery Road Zephyrhills, FL 33542	E7179B	06/13/2006	FL	
Radiology & Diagnostic Imaging 2200 East Parrish Avenue Owensboro, KY 42303	3641	06/13/2006	KY	Building D
Santa Monica Bay Physicians 12524 W. Washington Boulevard Los Angeles, CA 90066	W14560	06/13/2006	CA	
Missouri Baptist Medical Center 3023 N. Ballas Road. St. Louis, MO 63141	260108	06/13/2006	MO	Suite 150, Building D
Radiology Associates of Tallahassee, PA 1600 Phillips Road Tallahassee, FL 32308	60	06/13/2006	FL	
Pacific Imaging-Oakland 3200 Telegraph Avenue Oakland, CA 94609	1265480099	06/13/2006	CA	
Medical Group of North County 5395 Ruffin Road, #202 San Diego, CA 92123	W11609	06/13/2006	CA	#202
Somerset Community Hospital 225 South Center Avenue Somerset, PA 15501	390039	06/13/2006	PA	

Elmbrook Memorial Hospital 19333 W. North Avenue Brookfield, WI 53045	520170	06/13/2006	WI	
San Luis Diagnostic Medical Associates 1100 Monterey Street San Luis Obispo, CA 93401	W14221	06/13/2006	CA	Suite 210
Cancer Care Centers of S.Texas, PA (New Braunfels) 1448 Common Street New Braunfels, TX 78130	00U40Q	06/13/2006	TX	
Cancer Care Centers of S.Texas, PA (San Antonio) 8109 Fredericksburg Road San Antonio, TX 78229	00U40Q	06/13/2006	TX	
Cancer Care Centers of S.Texas, PA (Kerrville) 694 Hill Country Drive Kerrville, TX 78028	00U40Q	06/13/2006	TX	
San Antonio Molecular Imaging SAMI 9102 Floyd Curl Drive San Antonio, TX 78240	FTN025	06/13/2006	TX	Suite 193
Pacific Medical Imaging and Oncology Center, Inc. 707 South Garfield Avenue Alhambra, CA 91801	W19267	06/13/2006	CA	Suite B-001
Northern IL Cancer Treatment Center 327 IL Route 2 Dixon, IL 61021	210699	06/13/2006	IL	
Cancer Care Center 2210 Green Valley Road New Albany, IN 47150	243690	06/13/2006	IN	Suite 1
Northeast Radiology 3839 Danbury Road Brewster, NY 10509	1134118607	06/13/2006	NY	

New England PET Imaging System 70 East Street Methuen, MA1844	M20762	06/13/2006	MA	
Southeast Texas PET Imaging 690 North 14th Street Beaumont, TX 77702	0004CC	06/13/2006	TX	
Sun City West PET Scan 14418 W. Meeker Boulevard Sun City West, AZ 85374	102496	06/13/2006	AZ	Suite 105
Butler Memorial Hospital 911 East Brady Street Butler, PA 16001	390168	06/13/2006	PA	
Diagnos, Inc., d.b.a. Diagnos PET/CT Imaging 2000 North Loop West Houston, TX 77018	ftnx11	06/13/2006	TX	Suite 100
Alliance Imaging-Washington Hospital 38950 Civic Center Drive Fremont, CA 94538	ZZZ28890Z	06/13/2006	CA	
Providence Saint Joseph Hospital 201 S. Buena Vista Street Burbank, CA 91505	50235	06/13/2006	CA	#125
Alliance Imaging-Centinela Freeman 333 Prairie Avenue Inglewood, CA 90301	TG281	06/13/2006	CA	
Alliance Imaging-Corona Regional Hospital 800 S. Main Street Corona, CA 91720	ZZZ23042Z	06/14/2006	CA	
Alliance Imaging-St. Mary's Regional Medical Center 235 W. 6th Street Reno, NV 89503	37860	06/14/2006	NV	235 W. 6th Street

Alliance Imaging-Downey Regional Medical Center 11500 Brookshire Avenue Downey, CA 90241	TG490	06/14/2006	CA	
Alliance Imaging-Visalia Medical Clinic 5400 W. Hillsdale Drive Visalia, CA 93291	ZZZ23046Z	06/14/2006	CA	
Alliance Imaging-Anaheim Memorial Medical Center 1111 W. La Palma Avenue Anaheim, CA 92801	TD017C	06/14/2006	CA	Anaheim Memorial Medical Center
Glendale Diagnostic Imaging Network Medical Office 403 South Glendale Avenue Glendale, CA 91205	W19100	06/14/2006	CA	
Advanced Imaging at Baybrook 11 Murray Street Glens Falls, NY 12801	33554a	06/14/2006	NY	
Elizabethtown Hematology-Oncology PLC 1107 Woodland Drive Elizabethtown, KY 42701	3638	06/14/2006	KY	Suite 105
Northern Arizona Radiology 77 W. Forest Avenue Suite 101 Flagstaff, AZ 86001	WCGJX	06/14/2006	AZ	
Suburban Imaging-Coon Rapids 8990 Springbrook Drive Suite 140 Coon Rapids, MN 55433	3087	06/14/2006	MN	
Covenant Medical Center 200 East Ridgeway Avenue Waterloo, IA 50702	421264647	06/14/2006	IA	

Mayo Clinic Rochester 10 3rd Avenue NW Rochester, MN 55905	1922074434	06/14/2006	MN	Charlton Building
Thousand Oaks Diagnostic Imaging Center 2180 Lynn Road Thousand Oaks, CA 91360	TP118	06/14/2006	CA	
InnerVision Advanced Medical Imaging 3801 Amelia Avenue Lafayette, IN 47905	167840	06/14/2006	IN	
UT-M. D. Anderson Cancer Center-PET Facility 1220 Holcombe Boulevard Houston, TX 77030	450076	06/14/2006	TX	ACB 6th Floor
Emory University Hospital 1364 Clifton Road, NE Atlanta, GA 30322	110010	06/14/2006	GA	Rm. E121 Nuclear Medicine/PET
Glendale MRI Institute 624 S. Central Avenue Glendale, CA 91204	HW9951	06/14/2006	CA	
Princeton Radiology 9 Centre Drive Jamesburg, NJ 08831	526492	06/14/2006	NJ	
Caromont Imaging Services 620 Summit Crossing Place Gastonia, NC 28054	340032	06/14/2006	NC	Suite 106
North Central Imaging 155 Sonterra Boulevard Suite 100 San Antonio, TX 78258	00867N	06/14/2006	TX	

Robert L. B. Tobin Diagnostic Imaging Center 7979 Wurzbach Drive Suite U113 San Antonio, TX 78229	00867N	06/14/2006	TX	
Edwards Comprehensive Cancer Center 1400 Hal Greer Boulevard Huntington, WV 25701	510055	06/14/2006	WV	
Home Hospital GLHS 2400 South Street Lafayette, IN 47904	150109	06/14/2006	IN	
St. Luke's North PET 153 Brodhead Road Bethlehem, PA 18017	390049	06/14/2006	PA	
Alamance Regional Medical Center 1240 Huffman Mill Road Burlington, NC 27216-0202	340070	06/14/2006	NC	PO Box 202
Verrazano Radiology 256 Mason Avenue Staten Island, NY 10305	1698	06/14/2006	NY	
Total Imaging Sun City 3862 Sun City Center Sun City Center, FL 33571	U4840	06/14/2006	FL	
Ortonville Area Health Services 450 Eastvold Avenue Ortonville, MN 56278	241342	06/14/2006	MN	
Merle West Medical Center 2865 Daggett Avenue Klamath Falls, OR 97601	380050	06/14/2006	OR	
Elite Imaging, LLC 2845 Aventura Boulevard Aventura, FL 33180	K3535	06/14/2006	FL	Suite 145

St. Mary Centralia 400 N. Pleasant Avenue Centralia, IL 62801	140034	06/14/2006	IL	
North Texas Regional Cancer Center 3705 W. 15th Street. Plano, TX 75075	00543K	06/14/2006	TX	
Centegra Health System 4201 Medical Center Drive McHenry, IL 60050	140116	06/14/2006	IL	
Boston Diagnostic Imaging 398 East Altamonte Drive Altamonte Springs, FL 32701	77022	06/14/2006	FL	
William W. Backus Hospital 326 Washington Street Norwich, CT 06360	70024	06/14/2006	CT	
NSMS-Sparta, IL 4253 Argosy Court Madison, WI 53714	208196	06/14/2006	WI	
LaPorte Hospital & Healthcare Services 1007 Lincolnway LaPorte, IN 46350	150006	06/14/2006	IN	
Skagit Valley Hospital 1415 E. Kincaid Street Mt.Vernon, WA 98273	500003	06/14/2006	WA	
Alliance Imaging-Fairfield Hospital 303 NW 11th Street Fairfield, IL 62837	213393	06/14/2006	IL	

Anderson Hospital 6800 State Route 162 Maryville, IL 62062	212761	06/14/2006	IL	
Alliance Imaging-Dean 1313 Fish Hatchery Road Madison, WI 53715	92170	06/14/2006	WI	
Alliance Imaging-Research 2316 E. Meyer Boulevard Kansas City, MO 64112	9004263A	06/14/2006	MO	
Alliance Imaging- St. Joseph 1000 Carondelet Drive Kansas City, MO 64114	9004263A	06/14/2006	MO	
Beebe Health Campus, d.b.a. Beebe Medical Center 18941 John J. Williams Highway Rehoboth, DE 19971	80007	06/14/2006	DE	
Medical Outsourcing Services, LLC 1200 Maple Road Joliet, IL 60432	211223	06/14/2006	IL	
Silver Spring Radiology 10801 Lockwood Drive Silver Spring, MD 20901	FDX009	06/14/2006	MD	STE 170
New England PET of Greater Lowell 295 Varnum Avenue Lowell, MA 01854	327080	06/14/2006	MA	
Stanford University 900A Blake Wilbur Drive Stanford, CA 94305	50441	06/14/2006	CA	
Medical Outsourcing, Services, LLC 3333 W. DeYoung Street Marion, IL 62959	211224	06/14/2006	IL	

Medical Outsourcing Services, LLC 1700 Clinton Street Muskegon, MI 49443	230066	06/14/2006	MI	
Medical Outsourcing Services, LLC 1001 Bellefontaine Avenue Lima, OH 45807	MEID02391	06/14/2006	OH	
Golf Diagnostic Imaging Center 9680 Golf Road Des Plaines, IL 60016	378810	06/14/2006	IL	
Medical Outsourcing Services, LLC 2816 South Ellis Avenue Chicago, IL 60616	211222	06/14/2006	IL	
Medical Outsourcing Services, LLC 1100 E. Norris Drive Ottawa, IL 61350	211224	06/14/2006	IL	
Medical Outsourcing Services, LLC 111 E. Spring Street Streator, IL 61364	211224	06/14/2006	IL	
Mansfield Imaging Center 536 S. Trimble Road Mansfield, OH 44906	MAD10921	06/14/2006	OH	Suite A
Manhattan Diagnostic Radiology 400 East 66th Street New York, NY 10021	W23211	06/14/2006	NY	
Riverside Walter Reed Hospital 7519 Hospital Drive Gloucester, VA 23061	490130	06/14/2006	VA	
Good Shepherd Hospital 450 West Highway 22 Barrington, IL 60010	140291	06/14/2006	IL	

Alliance Imaging-Presbyterian Intercomm Hospital 12401 Washington Boulevard Whittier, CA 90602	TG281A	06/14/2006	CA	Presbyterian Intercommunity Hospital
Altru Hospital 1200 S. Columbia Road. Grand Forks, ND 58201	350019	06/14/2006	ND	
Mid American Imaging-Union Hospital 659 Boulevard Street Dover, OH 44622	ID00805	06/14/2006	OH	
Gundersen Clinic 1900 South Avenue Lacrosse, WI 54601	34217	06/14/2006	WI	
University of Minnesota Medical Center, Fairview 500 Harvard Street, SE Box 292 Minneapolis, MN 55455	C02390	06/14/2006	MN	
The Christ Hospital 2139 Auburn Avenue Cincinnati, OH 45219	360163	06/14/2006	OH	
West Michigan Cancer Center 200 N. Park Street Kalamazoo, MI 49007	0N66660	06/14/2006	MI	
Cyrus Diagnostic Imaging, Inc. 165 Waymont Court Lake Mary, FL 32746	40586	06/14/2006	FL	
Cancer Centers of Florida 1561 West Fairbanks Avenue Winter Park, FL 32789	K1833	06/14/2006	FL	

Cedars-Sinai Medical Center Adler-Nail PET Center 8700 Beverly Boulevard Los Angeles, CA 90048	951644600	06/14/2006	CA	S. Mark Taper Foundation Imaging Center
Cancer Centers of Florida 52 West Gore Street Orlando, FL 32806	K1833	06/14/2006	FL	
Cancer Centers of Florida 1111 Blackwood Avenue Ocoee, FL 34761	K1833	06/14/2006	FL	
Mt. Clemens Regional Medical Center 1000 Harrington Street Mt. Clemens, MI 48043	230227	06/14/2006	MI	
Truxtun Radiology Medical Group, LP 1818 16th Street Bakersfield, CA 93301	ZZZ25213Z	06/14/2006	CA	
Medical Outsourcing Services, LLC 1515 North Madison Avenue Anderson, IN 46011	223260	06/14/2006	IN	
Medical Outsourcing Services, LLC 1215 Franciscan Drive Litchfield, IL 62056	211224	06/14/2006	IL	
Piedmont Medical Center 1968 Peachtree Road, NW Atlanta, GA 30305	110083	06/14/2006	GA	
Medical Outsourcing Services, LLC 1400 West Park Street Urbana, IL 61801	211224	06/14/2006	IL	

Central Indiana PET, LLC 8301 Harcourt Road Suite 100 Indianapolis, IN 46260	201930	06/14/2006	IN	
Medical Outsourcing Services, LLC 812 North Logan Avenue Danville, IL 61832	211224	06/14/2006	IL	
Queens Medical Imaging, PC 69-15 Austin Street Forest Hills, NY 11375	1023011285	06/14/2006	NY	
NYOH PET/CT Imaging 43 New Scotland Avenue Albany, NY 12208	56917A	06/14/2006	NY	
Conroe Regional Medical Center 504 Medical Center Boulevard Conroe, TX 77304	450222	06/14/2006	TX	
Northeast Georgia Health System, Inc. Northeast Georgia Medical Center; 743 Spring Street Gainesville, GA 30501	110029	06/14/2006	GA	
Texas Oncology, PA-Mckinney 4510 Medical Center Drive Mckinney, TX 75069	00543K	06/14/2006	TX	#215

Medical Outsourcing Services, LLC 7150 Clearwater Drive Indianapolis, IN 46256	223260	06/14/2006	IN	
Medical Outsourcing Services, LLC 1402 East County Line Road Indianapolis, IN 46227	223260	06/14/2006	IN	
Texas Cancer Center-Sherman 2800 Highway 75 North Sherman, TX 75090	00543K	06/14/2006	TX	
Medical Outsourcing Services, LLC 120 Ralston Avenue Defiance, OH 43512	MEID02391	06/14/2006	OH	
Medical Outsourcing Services, LLC 2400 N. Rockton Avenue Rockford, IL 61103	211224	06/14/2006	IL	
Arlington Cancer Center 906 W. Randol Mill Road Arlington, TX 76012	00LK20	06/14/2006	TX	
Jupiter Medical Center 2055 Military Trail Jupiter, FL 33458	100253	06/14/2006	FL	
Cheyenne Radiology Group and MRI, PC 2003 Bluegrass Circle Cheyenne, WY 82009	W309142	06/14/2006	WY	
Hunterdon Imaging, PA 2100 Wescott Drive MRI Suite Flemington, NJ 08822	714119	06/14/2006	NJ	

Medical Outsourcing Services, LLC 200 Berteau Avenue Elmhurst, IL 60126	211223	06/14/2006	IL	
Magnolia Regional Center 611 Alcorn Drive Corinth, MS 38834	250009	06/14/2006	MS	
Monroe Clinic 515 22nd Avenue Monroe, WI 53566	520028	06/14/2006	WI	
Jupiter Hematology-Oncology Associates 345 Jupiter Lakes Boulevard Jupiter, FL 33458	34922	06/14/2006	FL	Ste.100
Southwest Regional Cancer Center 901 West 38th Street Austin, TX 78705	0080BY	06/14/2006	TX	
Positron Imaging Of Austin 6101 Balcones Drive Austin, TX 78731	00538K	06/14/2006	TX	
Southern Ocean County Hospital 1140 Route 72 West Manahawkin, NJ 08050	310113	06/14/2006	NJ	Radiology
Medical Outsourcing Services, LLC 9830 S. Ridgeland Road Chicago Ridge, IL 60145	211222	06/14/2006	IL	
Medical Outsourcing Services, LLC 430 West Votaw Street Portland, IN 47374	223260	06/14/2006	IN	

Saint Agnes Medical Center 1303 E. Herndon Avenue Fresno, CA 93720	50093	06/14/2006	CA	
Central Physicians Imaging 100 Southland Drive Lexington, KY 40503	9375001	06/14/2006	KY	Suite B
NEA Medical Center 3024 Stadium Boulevard Jonesboro, AR 72401	1386699353	06/14/2006	AR	
Northgate Medical Imaging, LLC 807 Northgate Boulevard New Albany, IN 47150	1205894235	06/14/2006	IN	
Ball Memorial Hospital 2401 University Avenue Muncie, IN 47303	150089	06/14/2006	IN	
The MRI Center 5200 Harroun Road Sylvania, OH 43560	360074	06/14/2006	OH	Flower Hospital
St. Joseph Regional Health Center 2801 Franciscan Drive Bryan, TX 77802	450011	06/14/2006	TX	
Steinberg Diagnostic (SDMI) 2850 Siena Heights Henderson, NV 89052	WCHCC	06/14/2006	NV	
Raritan Bay Medical Center 1 Hospital Plaza Old Bridge, NJ 08857	310039	06/14/2006	NJ	
MRI Center-St. Anne Mercy Hospital 3404 W. Sylvania Avenue Toledo, OH 43623	360262	06/14/2006	OH	

MRI Center-St. Charles Mercy Hospital 2600 Navarre Avenue Oregon, OH 43616	360081	06/14/2006	OH	
MRI Center-St. Luke's Hospital 2901 Monclova Road Maumee, OH 43537	360090	06/14/2006	OH	
MRI Center-St. Vincent Medical Center 2213 Cherry Street Toledo, OH 43608	360112	06/14/2006	OH	
MRI Center- Toledo Hospital 2142 N. Cove Boulevard Toledo, OH 43606	360068	06/14/2006	OH	
McAlester Regional Health Center One Clark Bass Boulevard McAlester, OK 74501	370034	06/14/2006	OK	
Express Imaging Center, Ltd. 1987 West Fourth Street Mansfield, OH 44906	9299151	06/14/2006	OH	Suite A
Mercy Regional Medical Center 375 East Park Avenue Durango, CO 81301	60013	06/14/2006	CO	
Texas Oncology-Longview Cancer Center PET 1300 N. Fourth Street Longviews, TX 75601	00T35E	06/14/2006	TX	
UNC Hospitals 101 Manning Drive Chapel Hill, NC 27514	3400610	06/14/2006	NC	PET Department. Basement W/C Hospital

DeKalb Medical Center-Diagnostic Imaging Center 2701 North Decatur Road Decatur, GA 30033	110076	06/14/2006	GA	
Long Island Pet Imaging 6 Ohio Drive Lake Success, NY 11042	W4921	06/14/2006	NY	Suite 101
Vanderbilt University Medical Center 1161 21st Avenue South Nashville, TN 37232	3284867	06/14/2006	TN	Building 1251 RRB
Medical Outsourcing Services, LLC 1800 E. Lakeshore Drive Decatur, IL 62521	211224	06/14/2006	IL	
New York PET and CTA Imaging Center 7404 5th Avenue Brooklyn, NY 11209	1083680003	06/14/2006	NY	
Mercy Medical Center-North Iowa 1000 4th Street SW Mason City, IA 50401	160064	06/14/2006	IA	
Lawrence and Memorial Hospital 365 Motauk Avenue New London, CT 06320	70007	06/14/2006	CT	
Superior Medical Diagnostics II, LLC 235 Franklin Avenue Nutley, NJ 07110	68423	06/14/2006	NJ	
Oncology Specialists, S.C. 7900 N. Milwaukee Avenue Niles, IL 60714	587940	06/14/2006	IL	Suite 16

Hahnemann University Hospital Broad & Vine, MS300 Philadelphia, PA 19102	390290	06/14/2006	PA	
Shrewsbury Diagnostic Imaging, LLC 1131 Broad Street Shrewsbury, NJ 07702	24021	06/14/2006	NJ	Suite 110
Medical Outsourcing Services, LLC 500 West Court Street Kankakee, IL 60901	211224	06/14/2006	IL	
Forsyth Medical Center 3333 Silas Creek Parkway Winston Salem, NC 27103	3400014	06/14/2006	NC	
Medical Outsourcing Services, LLC 500 John Deere Road Moline, IL 61265	211224	06/14/2006	IL	
Medical Outsourcing Services, LLC 836 W. Wellington Avenue Chicago, IL 60657	211222	06/14/2006	IL	
Medical Outsourcing Services, LLC 1600 West Walnut Jacksonville, IL 62650	211224	06/14/2006	IL	
Medical Outsourcing Services, LLC 1600 23rd Street Bedford, IN 47471	223260	06/14/2006	IN	
Medical Outsourcing Services, LLC 1500 North Ritter Avenue Indianapolis, IN 46219	223260	06/14/2006	IN	

Medical Outsourcing Services, LLC 1221 N. Highland Aurora, IL 60506	211223	06/14/2006	IL	
Medical Outsourcing Services, LLC 1000 Lincoln Health Center Drive Mattoon, IL 61938	211224	06/14/2006	IL	
Salinas Valley Memorial Healthcare System 450 E. Romie Lane Salinas, CA 93901	50334	06/14/2006	CA	
Bridgeport Hospital 267 Grant Street Bridgeport, CT 06610	70010	06/14/2006	CT	
MRIGP, Inc., d.b.a. Advanced Medical Imaging Diamond H. 2490 W 26th Avenue Suite 20A Denver, CO 80211	H8808	06/14/2006	CO	
RCHO PET Imaging 5120 Belfort Boulevard Suite 130 Jacksonville, FL 32256	40259	06/14/2006	FL	
Presbyterian Hospital 200 Hawthorne Lane Charlotte, NC 28204	560554230	06/14/2006	NC	
Eisenhower Imaging Center 39000 Bob Hope Drive Rancho Mirage, CA 92210	ZZZ91572Z	06/14/2006	CA	Lower Level Lucy Curci Cancer Center
Mississippi Baptist Medical Center 501 Marshall Street Jackson, MS 39202	250102	06/14/2006	MS	

Texas Oncology-South Texas Cancer Center 2121 Pease Street Suite 101 Harlingen, TX 78550	14041756	06/14/2006	TX	Texas Oncology-South Texas Cancer Center
Valley Radiologists, Ltd.-Paseo II Office 5605 W. Eugie Avenue Suite 110 Glendale, AZ 85304	WCFHS	06/14/2006	AZ	
Good Samaritan Hospital 400 15th Avenue SE Puyallup, WA 98372	500079	06/14/2006	WA	
St. John's Mercy Hospital 851 5th Street Washington, MO 63090	260052	06/14/2006	MO	
Memorial Hermann The Woodlands OPID 9200 Pinecroft Drive Suite 100 The Woodlands, TX 77380	741152597	07/14/2006	TX	
St. Luke's Hospital 232 South Wood's Mill Road Chesterfield, MO 63017	260179	07/14/2006	MO	
Lake Vista Cancer Center 2790 Lake Vista Drive Lewisville, TX 75067	00543K	07/14/2006	TX	
Palms Imaging Medical Group, Inc. 1901 Outlet Center Drive Oxnard, CA 93036	W19564	07/14/2006	CA	
Houston Medical Imaging, LLC 3310 Richmond Avenue Houston, TX 77006	00137K	07/14/2006	TX	

Alliance Imaging-West Anaheim Medical Center 3033 W. Orange Avenue Anaheim, CA 92804	TD017	07/14/2006	CA	
Winthrop PET Imaging Center 222 Station Plaza North Suite 140 Mineola, NY 11501	330167	07/14/2006	NY	
Greenville Hospital System University Medical Center 701 Grove Road Greenville, SC 29605	420078	07/14/2006	SC	
High Field Open MRI 1895 Jefferson Road Rices Landing, PA 15357	7885	07/14/2006	PA	
PET/CT Center at St. Anthony's POB 1201 5th Avenue North St. Petersburg, FL 33705	E5753	07/14/2006	FL	Suite 100
Texas Oncology-Deke Slayton Cancer Center 501 Medical Center Webster, TX 77598	00t40e	07/14/2006	TX	
Invision North Florida Outpatient Imaging Center 6605 NW 9th Boulevard Gainesville, FL 32609	E4639	07/14/2006	FL	
Memorial Hospital of Union County 500 London Avenue Marysville, OH 43040	360092	07/14/2006	OH	
Texas Oncology/South Texas Cancer Center-McAllen 1901 S. 2nd Street McAllen, TX 78503	00N39J	07/14/2006	TX	

Baylor Medical Center at Irving 1901 North MacArthur Boulevard Irving, TX 75061	450079	07/14/2006	TX	
Providence Park Hospital 47601 Grand River Avenue Novi, MI 48374	230019	07/14/2006	MI	
Texas Oncology-Abilene 1957 Antilley Road Abilene, TX 79606	140414748	07/14/2006	TX	
St. Anthony Hospital 1000 North Lee Street Oklahoma City, OK 73101	370037	07/14/2006	OK	
Rice Memorial Hospital 301 Becker Avenue SW Willmar, MN 56201	240088	07/14/2006	MN	
LDS Hospital Nuclear Medicine 8th Avenue & C Street Salt Lake City, UT 84143	460010	07/14/2006	UT	
RMG First & Laurel Imaging Center 2466 First Avenue San Diego, CA 92101	W14057	07/14/2006	CA	
RMG Gardenview Imaging Center 1200 Gardenview Road Encinitas, CA 92024	W14057F	07/14/2006	CA	Suite 110
Decatur County Memorial Hospital 720 North Lincoln Street Greensburg, IN 47240	150062	07/14/2006	IN	
Midland Imaging Center 5001 Andrews Highway Midland, TX 79703	00U75H	07/14/2006	TX	

Advanced Imaging, LLC 3433 NW 56th C-10 Oklahoma City, OK 73112	400522379	07/14/2006	OK	
University of Iowa Hospitals and Clinics 200 Hawkins Drive Iowa City, IA 52242	160058	07/14/2006	IA	
AZ Oncology Associates PET/CT & CT Imaging Center 2070 W. Rudasill Road Tucson, AZ 85704	25291	07/14/2006	AZ	Suite 110
Medical Diagnostic Imaging 14 Raymond Avenue Poughkeepsie, NY 12603	EEN841	07/14/2006	NY	
Shore Memorial Hospital 10085 William F. Bernart Circle Nassawadox, VA 23413	540560500	07/14/2006	VA	
Deaconess Hospital 600 Mary Street Evansville, IN 47747	150082	07/14/2006	IN	
Great Neck Imaging, PC 907 Northern Boulevard Great Neck, NY 11021	1487646311	07/14/2006	NY	
FMH Rose Hill 1562 Opossumtown Pike Frederick, MD 21702	KP72	07/14/2006	MD	
Oakwood Annapolis Hospital 33155 Annapolis Road Wayne, MI 48184	230142	07/14/2006	MI	
The Regional Cancer Center 2500 West 12th Street Erie, PA 16505	140052	07/14/2006	PA	
Meritcare Hospital 801 North Broadway Fargo, ND 58122	350011	07/14/2006	ND	

Community Hospitals and Wellness Centers 433 W. High Street Bryan, OH 43506	360121	07/14/2006	OH	
Sacred Heart Hospital 900 W. Clairemont Avenue Eau Claire, WI 54701	520013	07/14/2006	WI	
Via Radiology-Meridian Pavilion 11011 Meridian Avenue North #101 Seattle, WA 98133	8859612	07/14/2006	WA	
Medical Outsourcing Services, LLC 2200 Market Street Charlestown, IN 47111	223260	07/14/2006	IN	
Allegheny General Hospital 320 East North Avenue Pittsburgh, PA 15232	60503	07/14/2006	PA	Division of Nuclear Medicine
Texas Oncology-12th Avenue 1001 W. 12th Avenue Fort Worth, TX 76104	00R66C	07/14/2006	TX	
Southwest Fort Worth Cancer Center 6500 Harris Parkway Fort Worth, TX 76132	00R66C	07/14/2006	TX	
St. Rita's Medical Center 730 W. Market Street Lima, OH 45801	360066	07/14/2006	OH	
New Mexico Oncology Hematology Consultants, Ltd. 4901 Lang Avenue NE Albuquerque, NM 87109	850367056	07/14/2006	NM	
Emory Eastside Medical Center 545 Old Norcross Road Lawrenceville, GA 30045	110192	07/14/2006	GA	Suite 200

Riverside Regional Medical Center 500 J. Clyde Morris Boulevard Newport News, VA 23601	490052	07/14/2006	VA	
Connecticut Oncology & Hematology 220 Kennedy Drive Torrington, CT 06790	C00633	07/14/2006	CT	
Chilton Memorial Hospital 97 West Parkway Pompton Plains, NJ 07444	310017	07/14/2006	NJ	
Riverside Diagnostic Center Williamsburg 120 Kings Way Williamsburg, VA 23188	490052	07/14/2006	VA	
Lawrence County MRI & Diagnostic Imaging Center 2526 Wilmington Road New Castle, PA 16105	68617	07/14/2006	PA	
Joint Township District Memorial Hospital 200 St. Clair Street Saint Marys, OH 45885	360032	07/14/2005	OH	
Radiation Therapy Regional Centers 3680 Broadway Fort Myers, FL 33901	77215	07/14/2006	FL	
Graduate Hospital 1800 Lombard Street Philadelphia, PA 19146	390285	07/14/2006	PA	One Graduate Hospital
Columbia Diagnostic Center 1111 Paulison Avenue Clifton, NJ 07015	94729	07/14/2006	NJ	
The Nebraska Medical Center 4250 Dewey Avenue Omaha, NE 68113	280013	07/14/2006	NE	

Memorial Hermann Memorial City OPID 925 Gessner Road Houston, TX 77024	741152597	07/14/2006	TX	
Clifton Springs Hospital and Clinic 2 Coulter Road Clifton Springs, NY 14432	330265	07/14/2006	NY	
Monongalia General Hospital 1200 J. D. Anderson Drive Morgantown, WV 26505	510024	07/14/2006	WV	Monongalia General Hospital
Providence Portland Medical Center 4805 NE Glisan Street Portland, OR 97213	380061	07/14/2006	OR	
Highfield Open MRI, Inc. 995 GreenTree Road Pittsburgh, PA 15220	7885	07/14/2006	PA	
Providence St. Vincent Medical Center 9205 SW Barnes Road Portland, OR 97225	380004	07/14/2006	OR	
Conway Regional Imaging Center 2120 Robinson Avenue Conway, AR 72034	40029	07/14/2006	AR	
Martin Memorial Medical Center 300 Hospital Avenue Stuart, FL 34994	100044	07/14/2006	FL	
Northwest Medical Foundation of Tillamook 1000 Third Street Tillamook, OR 97141	381317	07/14/2006	OR	Tillamook County General Hospital
O'Connor Hospital 2105 Forest Avenue San Jose, CA 95128-1471	50153	07/14/2006	CA	

Midtown Imaging, LLC-Wellington 440 N. State Road 7 Wellington, FL 33411	E9133	07/14/2006	FL	
Midtown Imaging, LLC-Jupiter 345 Jupiter Lakes Boulevard Jupiter, FL 33458	E9133	07/14/2006	FL	Suite 100
MMI/Mid Coast Hospital 51 US Route 1 Scarborough, ME 04074	327079	07/14/2006	ME	Suite O
Molecular Imaging Institute 5349 Commerce Boulevard Crown Point, IN 46307	192870	07/14/2006	IN	
RCOA Imaging Services 11937 US Highway 271 Tyler, TX 75708	FTN022	07/14/2006	TX	
MMI/Maine Medical Center 51 US Route 1 Scarborough, ME 4074	327079	07/14/2006	ME	Suite O
Radiology, Ltd. 4640 East Camp Lowell Drive Tucson, AZ 85712	WCBBM	07/14/2006	AZ	
Intermed Oncology Associates, S.C. 6701 159th Street Tinley Park, IL 60477	610860	07/14/2006	IL	
Lakes Radiology 450 Canisteo Street Hornell, NY 14843	1710937727	07/14/2006	NY	
Opelousas PET/CT Imaging Center 3975 I-49 South Service Road Suite 100 Opelousas, LA 70570	5DA11	07/14/2006	LA	

Florida Cancer Institute-BRK 7154 Medical Center Drive Spring Hill, FL 34608	1427017326	08/07/2006	FL	
Capital Health System 446 Belleview Avenue Trenton, NJ 08618	310044	08/07/2006	NJ	
Hudson Valley Diagnostic Imaging, PLLC 575 Hudson Valley Avenue New Windsor, NY 12553	WBH241	08/07/2006	NY	
St Joseph's Hospital 3200 Pleasant Valley Road West Bend, WI 53095	520063	08/07/2006	WI	
Atlantic Medical Imaging 30 East Maryland Avenue Somers Point, NJ 08244	101024	08/07/2006	NJ	
Providence Imaging Center 3340 Providence Drive Anchorage, AK 99508	2085R0202X	08/07/2006	AK	
Rochester Radiology Associates, PC 1277 Portland Avenue Rochester, NY 14621	199726	08/07/2006	NY	
Melbourne Internal Medicine Associates 1132 South Hickory Street Melbourne, FL 32901	77167	08/07/2006	FL	
Highline Imaging, LLC 275 SW 160th Street Seattle, WA 98166	8801784	08/07/2006	WA	
Tyler PET 415 South Fleishel Avenue Tyler, TX 75702	752131429	08/07/2006	TX	
Lake City Medical Center 340 NW Commerce Drive Lake City, FL 32055	100156	08/07/2006	FL	

Blount Memorial Hospital 907 East Lamar Alexander Boulevard Maryville, TN 37804	440011	08/07/2006	TN	
Texas Cancer Center Mesquite 4700 North Galloway Mesquite, TX 75150	R339	08/07/2006	TX	
Rutland Regional Medical Center: Diagnostic Imaging 160 Allen Street Rutland, VT 05701	470005	08/07/2006	VT	
MDMED, Inc. 155 Calle Portal Suite 700 Sierra Vista, AZ 85635	Z68496	08/07/2006	AZ	
Atlantic Medical Imaging Wall Township 2399 North Highway 34 Manasquan, NJ 08736	101024	08/07/2006	NJ	Ramshorn Executive Centre Bldg B
Newport Imaging Center 455 Old Newport Road Suite 101 Newport Beach, CA 92660	W10829	08/07/2006	CA	
Cancer Care and Hematology Specialists(CCHSC) 8915 West Golf Road Niles, IL 60714-05825	355030	08/07/2006	IL	
Hematology Oncology Associates of Illinois (HOAI) 715 West North Avenue Melrose Park, IL 60160	218860	08/07/2006	IL	
Princeton Community Hospital 122 12th Street Ext Princeton, WV 24740	510046	08/07/2006	WV	PO Box 1369
TRICAT, LLC at Edison 3830 Park Avenue Edison, NJ 08820	27193	08/07/2006	NJ	Suite 102

Olathe Medical Center 20333 W. 151st Street Olathe, KS 66061	170049	08/07/2006	KS	
St. Joseph Hospital 1140 West La Veta Avenue Orange, CA 92868	50069	08/07/2006	CA	2nd Floor Nuclear Medicine
Baptist Health Medical Center 9601 I630, Exit 7 Little Rock, AR 72205-7299	40114	08/07/2006	AR	
Florida Cancer Specialists 3840 Broadway Fort Myers, FL 33901	1225064520	08/07/2006	FL	
Pacca PET Imaging 5210 Belfort Road Suite 130 Jacksonville, FL 32256	37572	08/07/2006	FL	
National PET Scan Palm Beach, LLC 16110 Jog Road Delray Beach, FL 33484	1164452405	08/07/2006	FL	Suite 200
Central Memphis Regional PET Imaging Center, LLC 1388 Madison Avenue Memphis, TN 38104	1295719110	08/07/2006	TN	
Johnston Memorial Hospital 351 Court Street NE Abingdon, VA 24210	490053	08/07/2006	VA	
Lenox Hill Hospital 100 East 77th Street New York, NY 10021	131624070	08/07/2006	NY	
Mercy Medical Center 411 Laurel Street Suite 2310 Des Moines, IA 50314	160083	08/07/2006	IA	

New Orleans Regional PET Center, LLC 3434 Prytania Street Suite 120 New Orleans, LA 70115	1538143474	08/07/2006	LA	
Indiana Regional Medical Center PET Imaging 835 Hospital Road Indiana, PA 15701	390173	08/07/2006	PA	PO Box 788
Mid American-Defiance Clinic 1400 E. Second Street Defiance, OH 43512	ID00809	08/07/2006	OH	
Total Imaging Robertson 737 West Brandon Boulevard Brandon, FL 33511	k7282	08/07/2006	FL	
New Tampa Imaging Center 14302 N. Bruce B. Downs Boulevard Tampa, FL 33613	k57209	08/07/2006	FL	
Summit Imaging 12037 Cortez Boulevard Brooksville, FL 34613	40986	08/08/2006	FL	
University of NM Cancer Research & Treatment Center 900 Caminodey Salud NE Albuquerque, NM 87131	400521103	08/08/2006	NM	

Alliance Imaging-Los Alamitos Med Center 3751 Katella Avenue Los Alamitos, CA 90720	TD017	08/08/2006	CA	
NYU Clinical Cancer Center, Diagnostic Imaging 160 E. 34th Street New York, NY 10016	W1L361	08/08/2006	NY	2nd Floor
Margaret Mary Community Hospital 321 Mitchell Avenue Batesville, IN 47006	151329	08/08/2006	IN	
Quantum PET-Apple Hill 37 Monument Road York, PA 17403	40635	08/08/2006	PA	
Memorial Hospital 1204 N. Mound Street Nacogdoches, TX 75961	450508	08/08/2006	TX	
BMH-DeSoto 7601 Southcrest Parkway Southaven, MS 38671	250141	08/08/2006	MS	
Riverside Medical Center 300 Bourbonnais Campus Bourbonnais, IL 60914	140186	08/08/2006	IL	Riverside Medical Center

UCSD Center for Molecular Imaging 11388 Sorrento Valley Road Suite 100 San Diego, CA 92121	TG302	08/08/2006	CA	
Imaging Partners at Valley, LLC 400 South 43rd Street Renton, WA 98055	AB38657	08/08/2006	WA	Olympic Building
El Paso Cancer Treatment Center 7848 Gateway East Boulevard El Paso, TX 79915	00543K	08/08/2006	TX	
Desert Radiologists 3930 S. Eastern Avenue Las Vegas, NV 89119	VWCCBT	08/08/2006	NV	
Saint Joseph Hospital 2900 North Lake Shore Drive Chicago, IL 60068	140224	08/08/2006	IL	
Midstate Medical Center 435 Lewis Avenue Meriden, CT 06451	60646715	08/08/2006	VT	
Brookville Hospital 100 Hospital Road Brookville, PA 15825	391312	08/08/2006	PA	
Suntree Diagnostic Center 6300 N. Wickham Road Suite 101 Melbourne, FL 32940	701	08/08/2006	FL	
Virginia Mason Medical Center 1100 Ninth Avenue Seattle, WA 98101	500005	08/08/2006	WA	

Van Wert County Hospital 1250 South Washington Street Van Wert, OH 45891	360071	08/08/2006	OH	
Manhasset Diagnostic Imaging, PC 1350 Northern Boulevard 2nd Floor Manhasset, NY 11030	W14841	08/08/2006	NY	
Southern New Mexico Cancer Center 150 Road Runner Parkway Las Cruces, NM 88011	752131429	08/08/2006	NM	
Davis Memorial Hospital Gorman Avenue and Reed Street Elkins, WV 26241	510030	08/08/2006	WV	Gorman Avenue
Advocate Good Samaritan Hospital 3815 Highland Avenue Downers Grove, IL 60515	140288	08/08/2006	IL	
Benefis Healthcare 1101 26th Street South Great Falls, MT 59405	270012	08/08/2006	MT	
Fort Walton Beach Medical Center 1032 Mar Walt Drive Fort Walton Beach, FL 32547	100223	08/08/2006	FL	
Blessing Hospital PO Box #7005 Quincy, IL 62305	140015	08/08/2006	IL	
Alliance Imaging-Allen County Hospital 101 South 1st Street Iola, KS 53808	130656	08/08/2006	KS	

Florida Cancer Institute-NPR 8763 River Crossing Boulevard New Port Richey, FL 34655	1427017326	08/08/2006	FL	
Kimball Medical Center 600 River Avenue Lakewood, NJ 08701	315084	08/08/2006	NJ	
Radiology Imaging Associates at Heritage 8926 Woodyard Road Clinton, MD 20735	521454775	08/08/2006	MD	Suite 502
Immanuel Medical Center 6901 North 72nd Street Omaha, NE 68122	280081	08/08/2006	NE	
North Fork Radiology 1333 Roanoke Avenue Riverhead, NY 11901	w11401	08/08/2006	NY	
South County PET Imaging, LLC 10010 Kennerly Road St. Louis, MO 63128	93053	08/08/2006	MO	
Carolinas Hospital System 805 Pamplico Highway Florence, SC 29505	621587267	08/08/2006	SC	
Radiology Associates of San Luis Obispo 522 E. Plaza Drive Santa Maria, CA 93454	GR0009774	08/08/2006	CA	

Florida Cancer Specialists-Port Charlotte 22395 Edgewater Drive Port Charlotte, FL 33980	1225064520	08/08/2006	FL	
Florida Cancer Specialists-Venice 901 South Tamiami Trail Venice, FL 34285	1225064520	08/08/2006	FL	
Florida Cancer Specialists-Bradenton 6001 21st Avenue West Bradenton, FL 34209	1225064520	08/08/2006	FL	
Nebraska Methodist Hospital 8303 Dodge Street Omaha, NE 68114	280040	08/08/2006	NE	
PET/CT Center of Richardson 399 Melrose Drive Richardson, TX 75080	1740207539	08/08/2006	TX	Suite A
Molecular Imaging at Sequoia Imaging Center 4949 W. Cypress Avenue Visalia, CA 93277	ZZZ27463Z	08/08/2006	CA	
Central Jersey Radiologists 2128 Kings Highway Oakhurst, NJ 07755	527995	08/08/2006	NJ	
Claxton-Hepburn Medical Center 214 King Street Ogdensburg, NY 13669	330211	08/08/2006	NY	
Memorial Hermann Southeast 11800 Astoria Boulevard Houston, TX 77089	741152597	08/08/2006	TX	

NSMS-Pine Bluff, AR 4253 Argosy Court Madison, WI 53714	5f168	08/08/2006	WI	
Yuma Regional Medical Center 2400 S. Avenue A Yuma, AZ 85364	866007596	08/08/2006	AZ	
Carle Clinic 1702 S. Mattis Avenue Champagne, IL 61820	371188284	08/08/2006	IL	
North Shore-LIJ Center for Advanced Medicine 450 Lakeville Road Lake Success, NY 11042	330106	08/08/2006	NY	North Shore-LIJ Center for Advanced Medicine Diagnostic Imaging Center
McAlester Diagnostic Imaging 10 South Third Street McAlester, OK 74501	1760411540	08/08/2006	OK	Suite 100
California Imaging Institute 1867 E. Fir Avenue Fresno, CA 93720	ZZZ03565Z	08/08/2006	CA	
Bon Secours Memorial Regional Medical Center 8260 Atlee Road Mechanicsville, VA 23116	541744931	08/08/2006	VA	
University of Maryland Medical Center 22 S. Greene Street Gudelksy 2nd Floor Baltimore, MD 21201	210002	08/08/2006	MD	Division of Nuclear Medicine
Bixby Medical Center 818 Riverside Avenue Adrian, MI 49221	230005	08/08/2006	MI	

Kern Radiology Medical Group 2301 Bahamas Drive Bakersfield, CA 93309	1720023997	08/08/2006	CA	
Bon Secours St. Francis Medical Center 13710 St. Francis Boulevard Midlothian, VA 23114	311716973	08/08/2006	VA	
MMI/Maine General Waterville 51 US Route 1 Scarborough, ME 04074	327079	08/08/2006	ME	Suite O
Mount Adams Imaging Center 3911 Castlevale Road Yakimaw, WA 98902	8857843	08/08/2006	WA	
Carilion Roanoke Memorial Hospital 2001 Crystal Spring Avenue Roanoke, VA 24014	490024	08/08/2006	VA	
Seton Medical Center; Nuclear Medicine Dept. 1900 Sullivan Avenue Daly City, CA 94015-2229	50289	08/08/2006	CA	
Arnett Imaging Center 2403 Loy Drive Lafayette, IN 47909	224390	08/08/2006	IN	
Advanced Diagnostic Imaging, PC 1120 Professional Boulevard Evansville, IN 47630	639970	08/08/2006	IN	
Queen of Peace Hospital 301 Second Street NE New Prague, MN 56071	241361	08/08/2006	MN	

Agnesian Health Care 430 E. Division Street Fond du Lac, WI 54935	520088	08/08/2006	WI	
ACMH Hospital One Nolte Drive Kittanning, PA 16201	390163	08/08/2006	PA	
Wilshire Oncology Medical Group, Inc. 1280 Corona Pointe Court Corona, CA 92879	zzz19568z	08/08/2006	CA	Suite 112
United Radiology-Laurel 14201 Laurel Park Drive Laurel, MD 20707	2.01558E+11	08/08/2006	MD	Suite 208
Bay Area Medical Center 3100 Shore Drive Marinette, WI 54143	520113	08/08/2006	WI	
Penn State Milton S. Hershey Medical Center 500 University Drive Hershey, PA, 17033	251854772	08/08/2006	PA	HG380
Delta St. Joseph's MRI, LLC 1617 N. California Street Stockton, CA 95204	ZZZ19725Z	08/08/2006	CA	Suites 1A and 1B
United Radiology: Bowie 16701 Melford Boulevard Bowie, MD 20715	2.01558E+11	08/08/2006	MD	
United Radiology Gaithersburg 702 Russell Avenue Gaithersburg, MD 20877	2.01558E+11	08/08/2006	MD	

United Radiology Olney 18120 Hillcrest Drive Olney, MD 20832	2.01558E+11	08/08/2006	MD	Suite A
FCS/Axcess Diagnosis/Sarasota 600 N. Cattleman Road Sarasota, FL 34232	1225064520	08/08/2006	FL	
NSMS-Greenville, IL 4253 Argosy Court Madison, WI 53714	208196	08/08/2006	WI	
FCS/Axcess Diagnosis/Venice 842 Sunset Lake Boulevard Venice, FL 34292	1225064520	08/08/2006	FL	Suite #301
Leading Edge Radiation 8715 5th Avenue Brooklyn, NY 11209	WEM111	09/05/2006	NY	
Rena Tarbet Cancer Center 4201 Medical Center Drive Suite 180 McKinney, TX 75069	oow753	09/05/2006	TX	
McLaughlin & Marte, M.D, LLP 3850 Tampa Road Suite 202 Palm Harbor, FL 34684	1003862079	09/05/2006	FL	
BryanLGH Medical Center 2300 South 16th Street Lincoln, NE 68502	280003	09/05/2006	NE	

Freehold MR Associates 691 West Main Street Freehold, NJ 07728	405856	09/05/2006	NJ	
Franciscan Skemp Healthcare 700 West Avenue South La Crosse, WI 54601	520004	09/05/2006	WI	
Teton Radiology 2001 S. Woodruff Suite 17 Idaho Falls, ID 83404	1371462	09/05/2006	ID	
Fletcher Allen Health Care Mobile Pad 790 College Parkway Colchester, VT 05446	1659309615	09/05/2006	VT	790 College Parkway
University of Penn Imaging Center 3600 Market Street 3rd Floor Silverstein Philadelphia, PA 19104	764089	09/05/2006	PA	
Sitron-Hammel Radiology Group 4277 Hempstead Turnpike Suite 200 Bethpage, NY 11714	W14891	09/05/2006	NY	
MRI of Saint Louis Obispo 1064 Murray Avenue San Luis Obispo, CA 93405	1881661361	09/05/2006	CA	
Lahey Clinic 41 Mall Road Burlington, MA 01805	220171	09/05/2006	MA	
St Joseph Medical Center 215 N. 12th Street Reading, PA 19603	390096	09/05/2006	PA	

Spartanburg Regional Medical Center 101 E. Wood Street Spartanburg, SC 29303	420007	09/05/2006	SC	
Aurora Sinai Medical Center 945 N. 12th Street Milwaukee, WI 53201	520064	09/05/2006	WI	
FHN Memorial Hospital 1045 W. Stephenson Street Freeport, IL 61032	140160	09/05/2006	IL	
Southwest Washington Medical Center 400 NE Mother Joseph Place Vancouver, WA 98668	500050	09/05/2006	WA	
St. Lukes Center for Diagnostic Imaging 6 McBride and Sons Corporate Center Drive Suite 101 Chesterfield, MO 63005	47006	09/05/2006	MO	
The Stamford Health System Shelbourn Road & West Broad Street Stamford, CT 06904	70006	09/05/2006	CT	
Hagerstown Imaging, LLC 1150 A Professional Court Hagerstown, MD 21741	1518914936	09/05/2006	MD	
GCM Suburban Imaging 6420 Rockledge Drive Suite 3100 Bethesda, MD 20817	409623	09/05/2006	MD	
Alliance Imaging-No. Idaho Imaging 2003 Lincoln Way Coeur d'Alene, ID 83814	1790291	09/05/2006	ID	

HPMA PET Center 22710 Professional Drive Suite 104 Kingwood, TX 77339	0019BY	09/05/2006	TX	
Parma Community General Hospital 7007 Powers Boulevard Parma, OH 44129	360041	09/05/2006	OH	
Pacific Shores Medical Group PET Imaging 1043 Elm Street #104 Long Beach, CA 90813	W13494	09/05/2006	CA	
Clark Memorial Hospital 1220 Missouri Avenue Jeffersonville, IN 47130	15009	09/05/2006	IN	
Abilene Imaging Center, LLC 750 North 18th Street Abilene, TX 79601	FTA070	09/05/2006	TX	
DuBois Regional Medical Center 100 Hospital Avenue DuBois, PA 15801	390086	09/06/2006	PA	
Meeker County Memorial Hospital 612 South Sibley Avenue Litchfield, MN 55355	241366	09/06/2006	MN	
Memorial Health 4700 Waters Avenue Savannah, GA 31403	110036	09/06/2006	GA	
St. Luke's Regional Medical Center, Ltd. 190 E. Bannock Street Boise, ID 83712	130006	09/06/2006	ID	
Radiology Consultants Imaging Center 400 Avenue K, SE Winter Haven, FL 33880	U3944	09/06/2006	FL	

Patient Comprehensive Cancer Center 4352 North Josey Lane Carrollton, TX 75010	0083BY	09/06/2006	TX	
The University of Tennessee Medical Center 1924 Alcoa Highway Knoxville, TN 37920	440015	09/06/2006	TN	
Radiation Therapy Regional Centers-Naples 800 Goodlette Road Suite 110 Naples, FL 34102	77215	09/06/2006	FL	
St. Mary's Medical Center 2900 First Avenue Huntington, WV 25702	510007	09/06/2006	WV	
McKinney Regional Cancer Center 4601 Medical Center Drive McKinney, TX 75069	00711W	09/06/2006	TX	
WCA Hospital PO Box 840 Jamestown, NY 14701	330239	09/06/2006	NY	207 Foote Avenue
Grants Pass Imaging and Diagnostic Center, LLC 1619 NW Hawthorne Suite 110 Grants Pass, OR 97526	1659307973	09/06/2006	OR	
Baptist Memorial Hospital-Golden Triangle 2520 5th Street North Columbus, MS 39705	250100	09/06/2006	MS	
Florida Medical Clinic 13417 US Highway 301 Dade City, FL 33525	39715	09/06/2006	FL	

Saint Clare's Hospital 400 West Blackwell Street Dover, NJ 07801	310067	09/06/2006	NJ	
Radiation Medicine Associates 2202 South 77 Sun Shine Strip Suite E Harlingen, TX 78550	00645N	09/06/2006	TX	
The Radiology Clinic, LLC 208 McFarland Circle North Tuscaloosa, AL 35406	13089	09/06/2006	AL	
Bay Area Hospital 1775 Thompson Road. Coos Bay, OR 97420	30090	09/06/2006	OR	
MMI/St. Mary's Hospital 51 US Route 1 Scarborough, ME 04074	327079	09/06/2006	ME	Suite O
Gulf Coast Medical Diagnostic Center 2024 State Avenue Panama City, FL 32405	30930	09/06/2006	FL	
Diagnostic Radiology Systems, Inc. 1010 Medical Center Drive Powderly, KY 42366	9366001	09/06/2006	KY	
Lewis Gale Medical Center 1900 Electric Road Salem, VA 24153	490048	09/06/2006	VI	
Radiology Diagnostic Center 1310 Las Tablas Road Suite 103 Templeton, CA 93465	W7491	09/06/2006	CA	
Weslaco Nuclear Imaging Center 913 S. Airport Drive Weslaco, TX 78596	1780796219	09/06/2006	TX	

Pioneer PET, LLC 1930 E. Southern Avenue Tempe, AZ 85282	1265401996	12/05/2006	AZ	
Kearney Imaging Center, LLC 3219 Central Avenue Suite 109 Kearney, NE 68847	98950	12/05/2006	NE	
Rose Medical Center 4567 East 9th Avenue Denver, CO 80220	841321373	12/05/2006	CO	
UCSF Medical Center 185 Berry Street San Francisco, CA 94107	50454	12/05/2006	CA	Lobby 7 Suite 180
Broward General Medical Center 1500 S. Andrews Avenue Fort Lauderdale, FL 33316	100039	12/05/2006	FL	
St. Paul Radiology, PA/Midwest Radiology 166 Fourth Street East St. Paul, MN 55101	CO2661	12/05/2006	MN	
Queen of the Valley Hospital 1000 Trancas Street Napa, CA 94558	941243669	12/05/2006	CA	
Dana-Farber Cancer Institute 44 Binney Street Boston, MA 02115	220162	12/05/2006	MA	
Holmes Regional Medical Center 1350 South Hickory Street Melbourne, FL 32901	100019	12/05/2006	FL	
Niagara County PET Center Niagara Falls, NY 14302	f27482	12/05/2006	NY	621 Tenth Street Department of Radiology

Augusta Medical Center 78 Medical Center Drive Fishersville, VA 22939	490018	12/05/2006	VA	
Nevada Cancer Center 2851 North Tenaya Way Las Vegas, NV 89128	VWQBHJ	12/05/2006	NV	#100
Wellstar Kennestone Hospital Imaging Center 340 Kennestone Hospital Boulevard Marietta, GA 30060	110035	12/05/2006	GA	Suite LL10
Ashtabula County Medical Center 2412 Lake Avenue Ashtabula, OH 44004	1285607416	12/05/2006	OH	The Regional Cancer Center
Rowan Regional Medical Center 514 Corporate Circle Salisbury, NC 28147	340015	12/05/2006	NC	
The Pottsville Hospital and Warne Clinic 420 South Jackson Street Pottsville, PA 17901	390030	12/05/2006	PA	
Georgetown Memorial Hospital 606 Blackriver Road Georgetown, SC 29442	1982604021	12/05/2006	SC	
Medical Center of Arlington 3301 Matlock Road Arlington, TX 76015	450675	12/05/2006	TX	
Valley View Regional Hospital 430 N. Monte Vista Ada, OK 74820	370020	12/05/2006	OK	
Montgomery Medical Services 644 Maysville Road, Suite 10 Mount Sterling, KY 40353	9141	12/05/2006	KY	
Medical Outsourcing Services, LLC 5409 N. Knoxville Avenue Peoria, IL 61614	211224	12/05/2006	IL	

Medical Outsourcing Services, LLC 1300 N. Main Street Rushville, IN 46173	223260	12/05/2006	IN	
Mayo Clinic Arizona 13400 E. Shea Boulevard Scottsdale, AZ 85259	WCTGB	12/05/2006	AZ	
Door County Memorial Hospital 323 S. 18th Avenue Sturgeon Bay, WI 54235	1093743874	12/05/2006	WI	
Center for Diagnostic Imaging-Sartell 166 19th Street S. Sartell, MN 56377	C01307	12/05/2006	MN	Suite 100
South Texas Institute of Cancer 1205 South 19th Street Corpus Christi, TX 78405	0065AZ	12/05/2006	TX	
Del Sol Medical Center 10460 Vista Del Sol El Paso, TX 79925	450646	12/05/2006	TX	
University Hospital 818 St. Sebastian Way Augusta, GA 30901	110028	12/05/2006	GA	Suite 103
St. John Health System-Tulsa, OK 1923 S. Utica Avenue Tulsa, OK 74104	370114	12/05/2006	OK	
Allen Memorial Hospital 1825 Logan Avenue Waterloo, IA 50703	160110	12/05/2006	IA	
Craig General Hospital 735 North Foreman Street Vinita, OK 74301	370065	12/05/2006	OK	
Vision Imaging of Kingston 517 Pierce Street Kingston, PA 18704	86463	12/05/2006	PA	
Lake Hospital Mentor Campus 9485 Mentor Avenue Mentor, OH 44060	360098	12/05/2006	OH	Attn: Suite A

Excela RCL PET CT Imaging, LLC 200 Village Drive Greensburg, PA 15601	1144260415	12/05/2006	PA	
Kousay Al-Kourainy, MD 5395 Ruffin Road #202 San Diego, CA 92123	A39783	12/05/2006	CA	
Memorial Hermann Northwest Hospital 1635 North Loop West Houston, TX 77008	450184	12/05/2006	TX	
Accu/Site PET/CT Imaging Center 30 Harrison Street Johnson City, NY 13790	DD1474	12/05/2006	NY	Suite #102
DDIS-Bond 9 Bond Street Brooklyn, NY 11201	687s41	12/05/2006	NY	
West Valley Radiology Medical Group 7301 Medical Center Drive West Hills, CA 91307	Hw5870A	12/05/2006	CA	Suite 103
Westside Diagnostic and Therapeutic Medical Center, LLC 12524 West Washington Boulevard Los Angeles, CA 90066	TG472	12/05/2006	CA	
DDIS-Still 1783 Stillwell Avenue Brooklyn, NY 11223	687s41	12/05/2006	NY	
Alpena Regional Medical Center 1501 W, Chisholm Street Alpena, MI 49707	386000029	12/05/2006	MI	

Santa Monica Imaging Center 1245 16th Street Suite 105 Santa Monica, CA 90404	1881670248	12/05/2006	CA	
Mercer County Community Hospital 800 W. Main Street Coldwater, OH 45828	360058	12/05/2006	OH	
Johnson Memorial Hospital 1125 W. Jefferson Street Franklin, IN 46131-2675	150001	12/05/2006	IN	PO Box 549
St. Mary's Health Center 100 St. Mary's Medical Plaza Jefferson City, MO 65101	260011	12/05/2006	MO	
Eastside PET Center, LLC 46 Medical Park East Drive Birmingham, AL 35023	1619925070	12/05/2006	AL	Suite 224
United Regional Health Care System 1600 8th Street Wichita Falls, TX 76301	450010	12/05/2006	TX	
Denton Regional Medical Center 3535 S. I-35 Denton, TX 76210	450634	12/05/2006	TX	
Canton-Potsdam Hospital 50 Leroy Street Potsdam, NY 13676	161012691	12/05/2006	NY	
St. John Macomb Hospital 11800 E. 12 Mile Road Warren, MI 48093	230195	12/05/2006	MI	
Cleveland Regional Medical Center 201 East Grover Street Shelby, NC 28150	340021	12/05/2006	NC	
Bluefield Regional Medical Center 500 Cherry Street Bluefield, WV 24701	510071	12/05/2006	WV	

Charles Cole Memorial Hospital 1001 East Second Street Coudersport, PA 16915	390246	12/05/2006	PA	
New Jersey State Open MRI 155 State Street Hackensack, NJ 07601	85238	12/06/2006	NJ	
Westcoast Radiology 501 S. Lincoln Ave. Clearwater, FL 33756	E4187	12/06/2006	FL	
The Iowa Clinic / PETCO, LLC 1221 Pleasant Street Des Moines, IA 50309	I5819	12/06/2006	IA	
Quantum PET-Holy Spirit Hospital 890 Poplar Church Road Camp Hill, PA 17011	40635	12/06/2006	PA	
Coastal Bend PET Scan, Ltd. 1533 5th Street Corpus Christi, TX 78404	FTN014	12/06/2006	TX	
Pottstown Memorial Medical Center 1600 E. High Street Pottstown, PA 19464	390123	12/06/2006	PA	
UTMB PET/CT Imaging Center UTMB-Rebecca Sealy Hospital Galveston, TX 77555-0793	R518	12/06/2006	TX	301 University Blvd.
Diagnostic Imaging Services, LLC 11110 Medical Campus Road, Suite 204 Hagerstown, MD 21742	1114982808	12/06/2006	MD	
North Memorial Medical Center 3435 West Broadway Robbinsdale, MN 55422	1851344907	12/06/2006	MN	
Hays Medical Center 2220 Canterbury Drive Hays, KS 67601	2473	12/06/2006	KS	

St. Patrick Hospital & Health Sciences Center 500 West Broadway Missoula, MT 59802	1023032588	12/06/2006	MT	
Park Ridge Hospital 100 Hospital Drive Hendersonville, NC 28792	340023	12/06/2006	NC	
Fostoria Community Hospital 610 Plaza Drive Fostoria, OH 44830	361318	12/06/2006	OH	
UMDNJ-University Hospital 30 Bergen Street Newark, NJ 07101	221775306	12/06/2006	NJ	ADMC 5 Room 575 P.O. Box 1709
Metabolic Imaging of Boca 5458 Town Center Road Suite 103 Boca Raton, FL 33486	E5434	12/06/2006	FL	
Olean Open MRI 413 North 8th Street Olean, NY 14760	AA0996	12/06/2006	NY	
Mercy Memorial Health Center 1011 14th Avenue NW Ardmore, OK 73401	731500629	12/06/2006	OK	
Pontiac Osteopathic Hospital d.b.a. POH Medical Center 385 N. Lapeer Road Oxford, MI 48371	230207	12/06/2006	MI	
Texas Oncology Ft. Worth 1450 8th Avenue Fort Worth, TX 76104	00R66C	12/06/2006	TX	
West Valley Imaging 3025 S. Rainbow Boulevard Las Vegas, NV 89146	WQBDY	12/06/2006	NV	
Springman Medical Plaza Imaging Center PO Box 4650 Brownsville, TX 78523	1912973108	12/06/2006	TX	

EMH Regional Health Care System 630 East River Street Elyria, OH 44035	360145	12/06/2006	OH	
Denfeld Medical Center 4702 Grand Avenue Duluth, MN 55807	C06028	12/06/2006	MN	
Caldwell Memorial Hospital 321 Mulberry Street SW Lenoir, NC 28645	560554202	12/06/2006	NC	
Belleville, IL (Swansea) 4253 Argosy Court Madison, WI 53714	208196	12/06/2006	WI	
Comprehensive Cancer Centers of Nevada - NW Office 7445 Peak Drive Las Vegas, NV 89128	WCHCX	12/06/2006	NV	
Wheaton Francisan Healthcare-St. Joseph 5000 W. Chambers Street Milwaukee, WI 53210	520136	12/06/2006	WI	
United Hospital Center Rt. 19 South Clarksburg, WV 26302-1680	510006	12/06/2006	WV	#3 Hospital Plaza
Massena Memorial Hospital 1 Hospital Dive Massena, NY 13662	330223	12/06/2006	NY	
Redlands Community Hospital 350 Terracina Boulevard Redlands, CA 92373	ZZZ01782Z	12/06/2006	CA	
The Valley Hospital 1 Valley Health Plaza Paramus, NJ 07652	310012	12/06/2006	NJ	
Advanced Medical Imaging of Toms River 1430 Hooper Avenue Toms River, NJ 08753	447655	12/06/2006	NJ	Suite 102

McKenna Memorial Hospital 598 N. Union Street New Braunfels, TX 78130	450059	12/06/2006	TX	
NSMS-Parkland Farmington, Mo 4253 Argosy Court Madison, WI 53714	208196	12/06/2006	WI	
Alton Memorial Hospital 1 Memorial Drive Alton, IL 62002	14002	12/06/2006	IL	
Medical City Dallas Hospital Diagnostic Imaging Dallas, TX 75230	20943901	12/06/2006	TX	7777 Forest Lane
Mercy Medical Center 301 St. Paul Place Baltimore, MD 21202	210008	12/06/2006	MD	
St. Joseph's Medical Center 503 N. 3rd Street Brainerd, MN 56401	240075	12/06/2006	MN	
Covenant Healthcare 600 Irving Street Saginaw, MI 48602	1457354318	12/06/2006	MI	
Little Company of Mary Hospital 2800 West 95th Street Evergreen Park, IL 60805	140179	12/06/2006	IL	
Marion General Hospital Progressive Medical Imagine 830 N. Theatre Drive Marion, IN 46952	1457354318	12/06/2006	IN	
Escondido Pulmonary Medical Group 5395 Ruffin Road Suite 202 San Diego, CA 92123	W301	12/06/2006	CA	
Marshall Medical Center 1100 Marshall Way Placerville, CA 95667	50254	12/06/2006	CA	
Clermont Radiology 1804 Oakley Seaver Drive Clermont, FL 34711	U5066	12/06/2006	FL	Suite B

Mahoning Valley Imaging, Ltd. 7067 Tiffany Boulevard Youngstown, OH 44514	1457354318	12/06/2006	OH	
Southeastern Ohio Regional Medical Center 1341 Clark Avenue Cambridge, OH 43725	1457354318	12/06/2006	OH	
White County Medical Center 3214 E. Race Avenue Searcy, AR 72143	40014	12/06/2006	AR	
MED Arts JVIC 9101 Franklin Square Drive Baltimore, MD 21237	1932167178	12/06/2006	MD	
Memorial Hermann Southwest OPID 7797 SW Freeway Houston, TX 77074	741152597	12/06/2006	TX	
Twin County Regional Hospital 200 Hospital Drive Galax, VA 24333	1174524094	12/06/2006	VA	
Marion Ancillary Services, LLC 1040 Delaware Avenue Marion, OH 43302	991	12/06/2006	OH	
Owensboro Medical Health Systems Breckenridge Diagnostics Owensboro, KY 42301	180038	12/06/2006	KY	1020 Breckenridge Street
NSMS-Darlington, WI 209 Limestone Pass Cottage Grove, WI 53527	92420	12/06/2006	WI	
Santa Fe Imaging, LLC 1640 Hospital Drive Santa Fe, NM 87505	400521037	12/06/2006	NM	

Suncoast Imaging of Port Orange 1680 Dunlawton Avenue Port Orange, FL 32127	40370B	12/06/2006	FL	
Great Basin Imaging 2874 N Carson Street 3rd Floor Carson City, NV 89706	WJBDK	12/06/2006	NV	
St. Francis Hospital & Health Centers 1201 Hadley Road Mooresville, IN 46158	1457354318	12/06/2006	IN	
Las Colinas Cancer Center 7415 Las Colinas Boulevard Irving, TX 75063	00J062	12/06/2006	TX	
ADI 4006 Jonathan Street Waterloo, IA 50701	I15454	12/06/2006	IA	
St Francis Hospital & Health Centers South 8111 S. Emerson Avenue Indianapolis, IN 46237	1457354318	12/06/2006	IN	
Central Baptist Diagnostic Center 100 Southland Drive Lexington, KY 40503	9375001	06/14/2006	KY	Suite B
Baptist Health Medical Center-NLR PET/CT 3500 Springhill Drive North Little Rock, AR 72117	5F437	05/03/2007	AR	Suite 100
Commonwealth Hematology Oncology 216 Southtown Drive Danville, KY 40422	1285687178	03/21/2007	KY	
Commonwealth Hematology Oncology 95 Bogle Office Park Drive Somerset, KY 42503	1285687178	03/21/2007	KY	

UMPC and The Washington Hospital Cancer Center 155 Wilson Avenue Washington, PA 15301	105589VXB	03/10/2006	PA	
Lexington Diagnostic Center 1725 Harrodsburg Road Suite 100 Lexington, KY 40504	0406	03/08/2006	KY	
UW PET Imaging Center 8007 Excelsior Drive Madison, WI 53717	1346266319	04/03/2007	WI	
Fort Wayne Medical Oncology and Hematology 7910 W. Jefferson Boulevard Suite 107 Ft. Wayne, IN 46804	055770	04/23/2007	IN	
Danbury Hospital 24 Hospital Avenue Danbury, CT 06810	070033	04/23/2007	CT	
Reno Diagnostic Centers 590 Eureka Avenue Reno, NV 89512	1518904994	04/24/2007	NV	
The Kirklin Clinic PET-CT Facility 2000 6th Ave South Birmingham, AL 35233	10933768723	05/07/2007	AL	
PET Imaging Radiology, PSC Paseo San Pablo 100 Bayamon, PR	0085142	05/15/2007	PR	EDIF Dr. Arturo Cadilla Suite 208
Punxsutawney Area Hospital 81 Hillcrest Drive Punxsutawney, PA 15767	390199	05/15/2007	PA	
Princeton Baptist Medical Center 701 Princeton Avenue SW Birmingham, AL 35211	35211	05/30/2007	AL	
Medical Arts Radiology Commack 55 Veterans Memorial Highway Commack, NY 11725	W11682	05/31/2007	NY	

Carrol, Sheth & Raghavan, MD 1460 Bluegrass Avenue Louisville, KY 40215	5460	06/05/2007	KY	
Personal Care Molecular Imaging 1514 Highway 138 Wall, NJ 07719	109631	06/06/2007	NJ	
Lincoln Radiology Imaging 7121 Stephanie Lane Lincoln, NE 68516	099920	06/06/2007	NE	
Medcenter One 300 North 7th Street Bismark, ND 58506-5525	1538245634	07/24/2007	ND	
Wheaton Franciscan Healthcare - All Saints 3801 Spring Street Racine, WI 53405	520096	08/08/2007	WI	N/A
Diagnostic Centers of America 6080 Boynton Boulevard Suite 140 Boynton Beach, FL 33437	E4439	08/22/2007	FL	N/A
Center for Integrative Cancer Medicine, P.A 1733 Curie Drive Suite 305 El Paso, TX 79902	00315U	08/22/2007	TX	N/A
St. Luke's Hospital 1026 A Avenue N.E. Cedar Rapids, IA 52406-3026	160045	08/22/2007	IA	N/A
Shared PET Imaging, LLC - Cincinnati OH Eden Avenue & Albert Sabin Way Cincinnati, OH 45219	ID01511	08/22/2007	OH	N/A
Integrated Magnetic Imaging 7100 University Court Montgomery, AL 36117	7811	08/22/2007	AL	N/A

Northwest PET Imaging 265 N. Broadway Street Portland, OR 97227	105512	08/22/2007	OR	N/A
Center for Diagnostic Imaging - St. Louis Park 5775 Wayzata Boulevard #190 St. Louis Park, MN 55416	C01307	08/22/2007	MN	N/A
Ponca City Medical Center 1900 North 14th Street Ponca City, OK 74601	370006	08/22/2007	OK	N/A
Sanford Health 1305 W. 18th Street Sioux Falls, SD 57117	430027	08/22/2007	SD	N/A
Central Valley PET Imaging 4744 Quail Lake Drive Stockton, CA 95207	00A484230	08/22/2007	CA	N/A
PET/CT Imaging Center 4000 N. Illinois Lane Swansea, IL 62226	201339	08/22/2007	IL	PET/CT Imaging Center
Memorial Medical Center 1105 W. Frank Avenue Suite 100 Lufkin, TX 75901	450211	08/22/2007	TX	d.b.a. Temple Imaging Center
Rockingham Memorial Hospital 235 Cantrell Ave Harrisonburg, VA 22801	490004	08/22/2007	VA	N/A
Regions Imaging Center 401 Phalen Boulevard 41101C St. Paul, MN 55101	240106	08/22/2007	MN	N/A
Florida Hospital Imaging, LLC 335 Clyde Morris Boulevard Suite 250 Ormond Beach, FL 32174	1104876358	08/22/2007	FL	N/A
Hutchinson Clinic, PA 2101 North Waldron Street Hutchinson, KS 67502	1043298474	08/22/2007	KS	N/A

Parkwest Imaging 3676 Parker Boulevard Pueblo, CO 81008	455838	08/22/2007	CO	N/A
St. Clair Hospital/UPMC Cancer Center PET/CT 1000 Bower Hill Road Pittsburgh, PA 15243	1699708792	08/22/2007	PA	N/A
St. Joseph Mercy Oakland (SJMO) 44405 Woodward Avenue Pontiac, MI 48341	1457354318	08/22/2007	MI	N/A
Edward Hospital 801 S. Washington Street Naperville, IL 60540	140231	08/22/2007	IL	N/A
East Montgomery Imaging Center 6880 Winton Blount Boulevard Montgomery, AL 36117	58866	08/22/2007	AL	N/A
Memorial Hospital of Martinsville and Henry County 320 Hospital Drive Martinsville, VA 24112	490079	08/22/2007	VA	N/A
Thomas Hospital 750 Morphy Avenue Fairhope, AL 36532	10100	08/22/2007	AL	N/A
Portland Adventist Medical Center 10123 SE Market Street Portland, OR 97216	380060	08/22/2007	OR	N/A
Nash Healthcare System, Inc. 2460 Curtis Ellis Drive Rocky Mount, NC 27804	340147	08/22/2007	NC	N/A
North Broward Medical Center 201 E. Sample Road Deerfield Beach, FL 33064	100068	08/22/2007	FL	Radiology
Jennie Stuart Medical Center 320 West 18th Street Hopkinsville, KY 42240	180051	08/22/2007	KY	N/A

Greater Houston Imaging, L.P. 6565 West Loop South Suite 100 Bellaire, TX 77401	FTNPX1	08/22/2007	TX	N/A
Sunrise Hospital Medical Center 3186 South Maryland Parkway Las Vegas, NV 89109	290003	08/22/2007	NV	N/A
The Diagnostic and Treatment Center 3401 Cranberry Boulevard Weston, WI 54476	92450	08/22/2007	WI	N/A
Ochsner Medical Center 1514 Jefferson Highway New Orleans, LA 70121	720502505	08/22/2007	LA	N/A
Inland Empire Medical Imaging 225 W. Hospitality Lane Suite #100 San Bernardino, CA 92408	zzz316682	08/22/2007	CA	N/A
Independent Nuclear PET Imaging 1115 N. Parrott Avenue Okeechobee, FL 34972	1922070796	08/22/2007	FL	N/A
Hugh Chatham Memorial Hospital 180 Parkwood Drive Elkin, NC 28621	340097	08/22/2007	NC	N/A
Marian Medical Center/Plaza Diagnostic Imaging 525 E. Plaza Drive Santa Maria, CA 93454	50107	08/22/2007	CA	N/A
DDIS-FH 8002 Kew Gardens Road Kew Gardens, NY 11415	687s41	08/22/2007	NY	N/A
NYPH-Weill Cornell 525 E 68th Street New York, NY 10021	131623978	08/22/2007	NY	N/A

Genesys Regional Medical Center One Genesys Parkway Grand Blanc, MI 48439-8066	230197	08/22/2007	MI	N/A
Geisinger Medical Center 100 North Academy Avenue Danville, PA 17822	390006	08/22/2007	PA	N/A
Citrus Diagnostic Center 922 N Citrus Avenue Crystal River, FL 34428	K5374	08/22/2007	FL	N/A
Middlesex Hospital 534 Saybrook Road Middletown, CT 6457	70020	08/22/2007	CT	N/A
Geisinger Wyoming Valley Medical Center 1000 East Mountain Drive Wilkes-Barre, PA 18711	390270	08/22/2007	PA	N/A
Canton, IL - Northern Shared Medical Services 209 Limestone Pass Cottage Grove, WI 53527	208196	08/22/2007	WI	N/A
Self Regional Healthcare 102 Academy Street Greenwood, SC 29646	420071	08/22/2007	SC	N/A
Bristol Hospital Brewster Road Bristol, CT 06011	70029	08/22/2007	CT	P.O. Box 977
East Texas Hematology & Oncology Clinic, PA 1202 West Frank Avenue Lufkin, TX 75904	00T37K	08/22/2007	TX	N/A
St. John River District Hospital 4100 River Road East China, MI 48054	230241	08/22/2007	MI	N/A

Morgan Hospital 2209 John R Wooden Drive Martinsville, IN 46151	150038	08/22/2007	IN	N/A
Cotton-O'Neil Cancer Center 1414 SW 8th Street Topeka, KS 66606	1811944457	08/22/2007	KS	N/A
Barnes-Jewish West County Hospital 12634 Olive Boulevard St Louis, MO 63141	260162	08/22/2007	MO	N/A
Hardin Memorial Hospital 913 North Dixie Avenue Elizabethtown, KY 42701	180012	08/22/2007	KY	N/A
Cancer Institute of Florida, LLC 894 E. Altamonte Drive Altamonte Springs, FL 32701	72793	08/22/2007	FL	N/A
Community Hospital, New Port Richey 5637 Marine Parkway New Port Richey, FL 34652	100191	08/22/2007	FL	N/A
Pulaski Community Hospital 2400 Lee Highway Pulaski, VA 24301	490116	08/22/2007	VA	N/A
Advocate South Suburban Hospital 17800 S. Kedzie Avenue Hazel Crest, IL 60429	3.62169E+11	08/22/2007	IL	N/A
St. Vincent's Medical Center 2800 Main Street Bridgeport, CT 6606	70028	08/22/2007	CT	N/A
Cayuga Medical Center at Ithaca 3218 Wilkins Road Ithaca, NY 14850	330307	08/22/2007	NY	N/A
Immanuel-ST Josephs Mayo Health Stystem 1025 Marsh Street Mankato MN 56002-8673	240093	08/22/2007	MN	PO Box 8673

Kell West Regional Hospital 5420 Kell West Boulevard Wichita Falls, TX 76310	450827	08/22/2007	TX	N/A
Aurora Medical Center Kenosha 10400 75th Street Kenosha, WI 53142	520189	08/22/2007	WI	N/A
Aurora Lakeland Medical Center W3985 County Rd Nn Elkhorn, WI 53121	520102	08/22/2007	WI	N/A
Munson Medical Center 1105 Sixth Street Traverse City, MI 49684	230097	08/22/2007	MI	N/A
Kansas City Cancer Center - North 8700 Greenhills Road Kansas City, MO 64154	5650000E	08/22/2007	MO	N/A
PET Imaging Center of Maine 885 Union Street Suite 115 Bangor, ME 04401	10211501	08/22/2007	ME	N/A
SMS - Chester, IL 1900 State Street Chester, IL 62233	208196	08/22/2007	IL	N/A
PET of Reston, LP 1800 Town Center Drive Suite 115 Reston, VA 20190	G01960P03	08/22/2007	VA	N/A
Healthcare Imaging Center 4334 Central Ave Riverside, CA 92506	ZZZ14451Z	08/22/2007	CA	N/A
Robert Wood Johnson University Hospital at Hamilton 1 Hamilton Health Place Hamilton, NJ 08690	310110	08/22/2007	NJ	N/A
Northside Hospital 1000 Johnson Ferry Road Atlanta, GA 30342	110161	08/22/2007	GA	N/A

Aurora Medical Center Kenosha 10400 75th Street Kenosha, WI 53142	520189	08/22/2007	WI	N/A
Partners Imaging Center of Sarasota 1250 S. Tamiami Trail Suite 103 Sarasota, FL 34239	Q0353	08/22/2007	FL	N/A
Memorial Medical Center 216 Sunset Place Neillsville, WI 54456	521323	08/22/2007	WI	N/A
Central Virginia Imaging, LLC 1900 Tate Spings Road Suite 21 Lynchburg, VA 24501	1578594412	08/22/2007	VA	N/A
Los Alamitos Medical Center 3951 Katella Ave Los Alamitos, CA 90720	50551	08/22/2007	CA	N/A
Valley Advanced Imaging, LLC 2403 Butler Street Easton, PA 18042	1417907023	08/22/2007	PA	N/A
Good Samaritan PET/CT and Imaging services 1245 Montauk Hwy West Islip NY 11795	330286	08/22/2007	NY	N/A
Scotland Memorial Hospital 500 Lauchwood Drive Laurinburg, NC 28352	340008	08/22/2007	NC	N/A
McFarland Clinic, P.C. 1111 Duff Avenue Ames, IA 50010	1639135643	08/22/2007	IA	N/A
Providence Hospital 1150 Varnum Street NE Washington, DC 20017	90006	08/22/2007	DC	N/A
The Angeles Clinic and Research Institute 11818 Wilshire Boulevard Suite 200 Los Angeles, CA 90025	W15185A	08/22/2007	CA	N/A

Rose Radiology Centers, Inc. 5107 N. Armenia Avenue Tampa, FL 33603	1629162904	08/22/2007	FL	Bldg B
Texas Oncology East Houston 13111 East Freeway Houston, TX 77015	1811944101	08/22/2007	TX	N/A
NSMS - St. Joe's - Breese, IL 9515 Holy Cross Lane Breese, IL 62230	208196	08/23/2007	IL	N/A
UT Cancer Institute 7945 Wolf River Boulevard Germantown, TN 38138	3711381	08/23/2007	TN	N/A
Fresno Imaging Center 6191 N. Rhesta Avenue Fresno, CA 93710	N/A	08/23/2007	CA	N/A
Imaging Consultants Inc. at Sturdy Memorial 211 Park Street Attleboro, MA 02703	327085	08/23/2007	MA	N/A
Fairfax PET Imaging Center, LLC 8503 Arlington Boulevard Lower level Fairfax, VA 22031	1861433674	08/23/2007	VA	N/A
City Hospital, Inc. 2500 Hospital Drive Martinsburg, WV 25401	510008	08/23/2007	WV	N/A
White Plains Radiology Associates PET Center Davis and Post Roads White Plains, NY 10601	w11842	08/23/2007	NY	N/A
Lenoir Memorial Hospital 100 Airport Road Kinston, NC 28503-1678	1962446385	08/23/2007	NC	N/A

Sand Lake Imaging 9350 Turkey Lake Road Orlando, FL 32819	34896	08/23/2007	FL	SUITE 100
Advocate Lutheran General Center For Advanced Care 1800 Luther Lane Park Ridge, IL 60068	140223	08/23/2007	IL	N/A
Flower Hospital 5200 Harroun Road Sylvania, OH 43560	360074	08/23/2007	OH	N/A
Dekalb Memorial Hospital 1316 E. 7th Street Auburn, IN 46706	N/A	08/23/2007	IN	N/A
St. John Hospital and Medical Center 1315 Macom Drive Naperville, IL 60564	116	08/23/2007	IL	N/A
Bayhealth Medical Center 540 S. Governors Avenue Dover, DE 19904	N/A	08/23/2007	DE	N/A
ImageCare 713 Troy-Schenectady Road Suite 124 Latham, NY 12110	1922048370	08/23/2007	NY	Capital Region Health Park
Southside Regional Medical Center 801 South Adams Street Petersburg, VA 23803	490067	08/23/2007	VA	N/A
East Alabama Medical Center-Auburn Diagnostic Imaging 1527 Professional Parkway Auburn, AL 36830	29	08/23/2007	AL	N/A
Trover Health System 900 Hospital Drive Madisonville, KY 42431	1457354318	08/23/2007	KY	N/A

Doctors Hospital at Renaissance, Ltd 5501 S. McColl Road Edinburg, TX 78359	450869	08/23/2007	TX	N/A
Twin Lakes Imaging Center 1890 LPGA Boulevard Daytona Beach, FL 32117	1023040870	08/23/2007	FL	Suite 110
Nathan Littauer Hospital 99 E. State Street Gloversville, NY 12078	330276	08/23/2007	NY	N/A
Altoona Regional Health System 620 Howard Avenue Altoona, PA 16601	390073	08/23/2007	PA	N/A
Warren General Hospital 2 Crescent Park West Warren, PA 16365	390146	08/23/2007	PA	N/A
Reid Hospital Health Care Services 1401 Chester Boulevard Richmond, IN 47374	1457354318	08/23/2007	IN	N/A
Orange City Area Health System 1000 Lincoln Circle SE Orange City, IA 51041	161360	08/23/2007	IA	N/A
Mercy Hospital Clermont 3000 Hospital Drive Batavia, OH 45103	1457354318	08/23/2007	OH	N/A
Arroyo Grande Community Hospital 345 South Halcyon Road Arroyo Grande, CA 93454	50016	08/23/2007	CA	N/A
HealthEast St. John's Hospital 1575 Beam Avenue Maplewood, MN 55109	240210	08/23/2007	MN	N/A

St. Joseph's/Candler Health System 5353 Reynolds Street Savannah, GA 31405	110024	08/23/2007	GA	N/A
NSMS - Pickneyville, IL 101 North Walnut Street Pinckneyville, IL 62274	208196	08/23/2007	IL	N/A
Duke Raleigh Hospital 3400 Wake Forrest Road Raleigh, NC 27609	340073	08/23/2007	NC	N/A
Advanced Radiology Services & The Center for Women 400 Plaza Court East Stroudsburg, PA 18301	33012	08/23/2007	PA	Suite C
Community Hospital 10020 Donald S. Powers Drive Munster, IN 46321	140125	08/23/2007	IN	N/A
Avant Imaging - Woodland Health Center 7575 Grand River Avenue Brighton, MI 48114	1457354318	08/23/2007	MI	N/A
EVDI Medical Imaging - East Mesa 6424 E. Broadway Road Mesa, AZ 85206	1164434098	08/23/2007	AZ	Suite 101
NSMS - St. Louis, Mo - ARCH Medical 209 Limestone Pass Cottage Grove, WI 53527	47013	08/23/2007	WI	N/A
CNY PET LLC 5100 West Taft Road Liverpool, NY 13088	AA0672	08/23/2007	NY	Suite 2C
MCMI 3000 Telegraph Avenue Oakland, CA 94609	ZZZ27496Z	08/23/2007	CA	N/A

Green Clinic, LLC 1200 S. Farmerville Street Ruston, LA 71270	57387	08/23/2007	LA	N/A
Fayette Memorial Hospital 3542 North Western Avenue Connersville, IN 47331	150064	08/23/2007	IN	N/A
Carolinas Medical Center - Union 600 Hospital Drive Monroe, NC 28112	340130	08/23/2007	NC	Nuclear Medicine Department
Citrus Medical Imaging Associates, Inc. 1000 Lakes Drive Suite 170 West Covina, CA 91790	HW2326	08/23/2007	CA	N/A
Radiation Oncology at WFUBMC Radiation Oncology Medical Center Boulevard Winston-Salem, NC 27152	340047	08/24/2007	NC	Wake Forest University Baptist Medical Center Comprehensive Cancer Center
Harrison County Hospital 245 Atwood Street Corydon, IN 47112	151331	08/24/2007	IN	N/A
Thibodaux Regional Medical Center 602 North Acadia Road Thibodaux LA 70301	190004	08/24/2007	LA	N/A
NSMS - Hot Springs, AR 1600 Higdon Ferry Road Hot Springs AR 71913	5F168	08/24/2007	AR	N/A
Pacific Oncology, PC 15700 SW Greystone Court Beaverton OR 97006	1043262116	08/24/2007	OR	N/A
Cancer Care Associates 1791 E. Fir Avenue Fresno, CA 93720	222375652	08/24/2007	CA	N/A

Massatusetts Mobile PET, PC- - Newburyport 25 Highland Avenue Newburyport, MA 01950	327086	08/24/2007	MA	N/A
Hematology Oncology Associates of Illinois 6801 West 34th Street Berwyn, IL 60402	218890	08/24/2007	IL	Suite 107
Massatusetts Mobile PET, PC - Haverhill 140 Lincoln Avenue Haverhill, MA 01830	327086	08/24/2007	MA	N/A
Corinth Medical Group 4851 I35 East Suite 101 Corinth, TX 76210	00K22X	08/24/2007	TX	N/A
New England PET Imaging Manchester One Elliot Way Manchester, NH 03103	327081	08/24/2007	NH	N/A
The Surgery Clinic 1026 Goodyear Avenue Gadsden, AL 35999	N/A	08/24/2007	AL	Suite B-101
Boston Medical Center 830 Harrsion Avenue Boston, MA 02118	220031	08/24/2007	MA	Suite 1600
Mercy Health Center 4190 24th Avenue Fort Gratiot, MI 48059	1457354318	08/24/2007	MI	N/A
The Cancer Center of Santa Barbara 300 W. Pueblo Street Santa Barbara, CA 93105	W13890	08/24/2007	CA	N/A
Milford Memorial Hospital Bayhealth Medical Center 21 W. Clarke Avenue Milford, DE 19963	N/A	08/24/2007	DE	N/A

North Coast Cancer Care 417 Quarry Lakes Drive Sandusky, OH 44870	NO9915215	08/24/2007	OH	N/A
Palm Beach Gardens Open Imaging Center 3335 Burns Road #101 Palm Beach Gardens, FL 33408	U8767	08/24/2007	FL	N/A
Advanced Medical Imaging, LLC 1780 NW Myhre Road Silverdale, WA 98383	AB24179	08/24/2007	WA	Suite 1220
Swedish American Hospital 1401 E State Street Rockford, IL 61104	140228	08/24/2007	IL	N/A
Molecular Diagnostics of Eastern Omaha 117 North 32nd Avenue Suite 100 Omaha, NE 68131	99894	08/24/2007	NE	N/A
Kingwood Medical Center 22999 U.S. Hwy 59 Kingwood, TX 77339	1811942238	08/24/2007	TX	N/A
Health Village Imaging 1301 Route 72 West Manahawkin, NJ 08050	1194810978	08/24/2007	NJ	Suite 100
ARH Hazard 100 Medical Center Drive Hazard, KY 41701	520795508	08/24/2007	KY	N/A
Central Florida Imaging Center, Inc. 6801 US 27 N Suite E-3 Sebring, FL 33870	1427076769	08/24/2007	FL	N/A
West Texas Cancer Center 301 N Washington Avenue Odessa, TX 79761	00543K	08/24/2007	TX	N/A

Beloit Memorial Hospital 1969 West Hart Road Beloit, WY 53511	520100	08/24/2007	WY	N/A
Pinnacle Imaging Center 2390 NW 7th Street Miami, FL 33125	U5131	08/24/2007	FL	SUITE 103
PET Imaging of El Paso 1225 E. Cliff Drive El Paso, TX 79902	FTN035	08/24/2007	TX	Building 3 Suite 200
St. Petersburg General Hospital 6500 38th Avenue North St. Petersburg, FL 33710	N/A	08/24/2007	FL	N/A
St. Mary Medical Center 1201 Langhorne-Newtown Road Langhorne, PA 19047	390258	08/24/2007	PA	N/A
St. Joseph Medical Center 1401 St. Joseph Parkway Houston, TX 77002	1154361475	08/24/2007	TX	N/A
UPMC Northwest 1671 Allegheny Boulevard Reno, PA 16343	390091	08/24/2007	PA	N/A
Mercy Hospital Fairfield 3000 Mack Road Fairfield, OH 45014	1457354318	08/24/2007	OH	N/A
Radiology Associates of West Pasco 5539 Marine Parkway New Port Richey, FL 34652	1558328963	08/24/2007	FL	N/A
St. Dominic Hospital 969 Lakeland Drive Jackson, MS 39216	250048	08/24/2007	MS	N/A
RCOA-Adventist Health-Sequoia 4949 W. Cypress Avenue Visalia, CA 93271	1427198696	08/24/2007	CA	N/A

McKee Medical Center 2000 Boise Ave Loveland, CO 80538	60030	08/24/2007	CO	N/A
Bon Secours Richmond Community Hospital 1500 North 28th Street Richmond, VA 23223	490094	08/24/2007	VA	N/A
West Houston Medical Center 12141 Richmond Avenue Houston, TX 77082	450644	08/24/2007	TX	N/A
Shands Teaching Hospital and Clinics, Inc. 2000 SW Archer Road Gainesville, FL 32608	100113	08/24/2007	FL	Radiology, Shands Medical Plaza
Tanner Medical Center 119 Ambulance Drive Carrollton, GA 30117	110011	08/24/2007	GA	N/A
OU Medical Center 700 NE 13th Street Oklahoma City, OK 73104	1780631390	08/24/2007	OK	N/A
The Medical Center of Aurora 1400 S. Potomac Street Aurora, CO 80012	60100	08/24/2007	CO	#180
AllenRidge Diagnostic Imaging Center 520 Lecanto Highway Lecanto, FL 34461	100023	08/24/2007	FL	N/A
The PET Center at BWMC 305 Hospital Drive Baltimore, MD 21061	1124016696	08/24/2007	MD	SUITE 302
Signet Diagnostic Imaging Services, LLC 8300 West Sunrise Boulevard Plantation, FL 33322	E8667	08/24/2007	FL	N/A

Adams Diagnostic Imaging 20 Expedition Trail Gettysburg, PA 17325	65290	08/24/2007	PA	Suite 102
Jennie Edmundson Hospital 933 E. Pierce Street Council Bluffs, IA 51503	160047	08/24/2007	IA	N/A
Holy Cross Hospital 4725 N. Federal Highway Fort Lauderdale, FL 33308	100073	08/24/2007	FL	Bienes Diagnostic Imaging Center
Medical University of Ohio 3000 Arlington Avenue Toledo, OH 43614	1457354318	08/24/2007	OH	N/A
Daviess Community Hospital 1314 E Walnut Street Washington, IN 47501	150061	08/24/2007	IN	Radiology Department
Jeff Anderson Regional Medical Center 2124 14th Street Meridian, MS 39301	250104	08/24/2007	MS	N/A
Modesto Imaging Center 157 E. Coolidge Avenue Modesto, CA 95350	ZZZ01977Z	08/24/2007	CA	N/A
Sioux Center Commmunity Hospital and Health Center 605 South Main Ave Sioux Center, IA 51250	161346	08/24/2007	IA	N/A
Southern Ohio Medical Center 1121 Kinneys Lane Portsmouth, OH 45662	360008	08/24/2007	OH	N/A
Massachusetts General Hospital 55 Fruit Street Boston, MA 02114	220071	08/24/2007	MA	N/A
Clinton Memorial Hospital Regional Health System 31 Farquhar Avenue Wilmington, OH 45177	316005307	08/24/2007	OH	N/A
CJW Medical Center 1401 Johnston Willis Drive Richmond, VA 23235	34632	08/24/2007	VA	N/A

Texas Oncology Weatherford 907 Foster Lane Weatherford, TX 76086	00539K	08/24/2007	TX	N/A
Sharper Imaging Diagnostic Radiology Center 3430 Tamiami Trail Port Charlotte, FL 33952	1730288515	08/24/2007	FL	Suite B
Morristown - Hamblin Healthcare System 908 W. 4th N. Street Morristown, TN 37814	1457354318	08/24/2007	TN	N/A
Puget Sound PET Imaging 6808 220th Street SW Mountlake Terrace, WA 98043	115162600	08/24/2007	WA	Suite 150
Detar Hospital Navarro 506 E. San Antonio Street Victoria, TX 77902	450147	08/24/2007	TX	N/A
PET Imaging of Chicago 6801 West 34th Street Suite 105 Berwyn, IL 60402	214832	08/24/2007	IL	N/A
Imaging Specialists Group, Ltd. 3101 Churchill Road Flower Mound, TX 75022	1417991852	08/24/2007	TX	Suite 100
OKOmed Downtown Imaging 2101 Crawford Street Suite 115 Houston, TX 77002	1780622464	08/24/2007	TX	N/A
Clear Lake Regional Medical Center 500 Medical Center Boulevard Webster, TX 77598	1063466035	08/24/2007	TX	N/A
Norton Hospital 315 East Broadway Louisville, KY 40202	180088	08/24/2007	KY	N/A
Saratoga PET Associates, LLC 3 Emma Lane Clifton Park, NY 12065	1356357172	08/24/2007	NY	N/A

Genesis Health Care System 2800 Maple Avenue Zanesville, OH 43701	1457354318	08/24/2007	OH	N/A
Lake Cumberland Regional Hospital 27 Imaging Drive Somerset, KY 42503	1457354318	08/24/2007	KY	N/A
Saint Francis Cancer Institute 14 Doctors' Park Cape Girardeau, MO 63703	260183	08/24/2007	MO	N/A
American Health Network of IN, LLC - PET/CT 6820 Parkdale Place Indianapolis, IN 46254	1164491775	08/24/2007	IN	Suite #105
PET CT Nuclear Radiology, Inc. 1501 Edisicio Detantacourt, Suite 302 Fernadez Juncos Santorze, PR 909	57886	08/24/2007	PR	Fernadez Juncos Santorze
NSMS - Reedsburg, WI 2000 North Dewey Street Reedsburg, WI 53959	1295785079	08/24/2007	WI	N/A
Wayne Memorial Hospital 2700 Wayne Memorial Hospital Goldsboro, NC 27534	340010	08/24/2007	NC	N/A
InMed Diagnostic Services of IL 10419 Fleming Road Carterville, IL 62918	205040	08/24/2007	IL	N/A
Henrico Doctors' Hospital 1602 Skipwith Road Richmond, VA 23229	490118	08/24/2007	VA	N/A
Alliance Imaging - United General Hospital 2000 Hospital Drive Sedro Woolley, WA 98284	8862377	08/24/2007	WA	N/A
Spencer Municipal Hospital 1200 First Avenue East Spencer, IA 51301	1255328621	08/24/2007	IA	N/A

Radilogy LTD LaCholla Center – Diagnostic Imaging 5960 N. LaCholla Avenue Tucson, AZ 85704	1841261989	08/24/2007	AZ	N/A
Saint Elizabeth Regional Medical Center 555 South 70th Street Lincoln, NE 68510	280020	08/24/2007	NE	N/A
Bucyrus Community Hospital 629 N. Sandusky Avenue Bucyrus, OH 44820	361316	08/24/2007	OH	N/A
Mercy Hospital of Willard 110 E. Howard Street Willard, OH 44890	361310	08/24/2007	OH	N/A
Lower Columbia Pathologists 1606 East Kessler Boulevard Longview, WA 98632	745800	08/24/2007	WA	4th Floor
Newton Medical Center 600 Medical Center Drive Newton, KS 67114	170103A	08/24/2007	KS	N/A
Advanced Imaging Partners 508 Cleveland Street Great Bend, KS 67530	1295791325	08/24/2007	KS	N/A
Integrated Medical Imaging 1040 Greenwood Springs Boulevard Greenwood, IN 46143	221970	08/24/2007	IN	N/A
Avera Sacred Heart Cancer Center 501 Summit Street Yankton, SD 57078	430012	08/24/2007	SD	N/A
ValleyCare Medical Center 5555 W. Las Positas Boulevard Pleasanton, CA 94588	50283	08/24/2007	CA	N/A
NSMS - Mena, AR 311 North Morrow Street Mena, AR 71953	1295785079	08/24/2007	AR	N/A

Memorial Hospital Easton 219 S. Washington Street Easton, MD 21601	210037	08/24/2007	MD	N/A
Seattle Cancer Care Alliance 825 Eastlake Avenue E Seattle, WA 98109	500138	08/24/2007	WA	Medical Imaging
Alliance Imaging - The Vancouver Clinic 700 NE 87th Avenue Vancouver, WA 98664	8864364	08/24/2007	WA	N/A
Martin Center for Diagnostic and Imaging Services 3901 S. Fremont Avenue Springfield, MO 65804	260040	08/24/2007	MO	N/A
Aultman Hospital 2600 Sixth Street SW Canton, OH 44710	1457354318	08/24/2007	OH	N/A
Imaging Consultants, Inc. at Harrington Memorial 600 Federal Street Andover, MA 01810	327085	08/24/2007	MA	N/A
Rhode Island Pet Services at Kent County 600 Federal Street Andover, MA 01810	1538113113	08/24/2007	MA	N/A
Imaging Consultants Inc. at Hawthorn 600 Federal Street Andover, MA 01810	1851449078	08/24/2007	MA	N/A
Swedish Covenant Hospital 5145 N California Avenue Chicago, IL 60625	362179813	08/24/2007	IL	N/A
Banner Baywood Medical Center 6644 E. Baywood Avenue Mesa, AZ 85206	30088	08/24/2007	AZ	N/A
Lourdes Hospital 1530 Lone Oak Road Padukah, KY 42003	1346244126	08/24/2007	KY	N/A

St, Vincent Oncology Center 8301 Harcourt Road Indianapolis, IN 46260	150084	08/24/2007	IN	N/A
United Hospital System, Inc. 9555 76th Street Pleasant Prairie, WI 53518	520021	08/24/2007	WI	N/A
East Tennessee Diagnostic Center 1450 Dowell Springs Boulevard Suite 210 Knoxville, TN 37909	1710932553	08/24/2007	TN	N/A
Nazareth Hospital 8400 Roosevelt Boulevard Philadelphia, PA 19152	390204A	08/24/2007	PA	N/A
Good Samaritan Hospital 2425 Samaritan Drive San Jose, CA 95124	50380	08/24/2007	CA	N/A
MedSpecialists Imaging Center 1064 Keene Road Dunedin, FL 34698	AB585	08/24/2007	FL	N/A
NSMS - Pekin, IL 2355 Broadway Road Pekin, IL 61544	1295785079	08/24/2007	IL	N/A
Bluegrass Regional Imaging, LLC 701 Bob-O-Link Drive Lexington, KY 40504	1871542670	08/24/2007	KY	Suite 245
Fairfax Pet Imaging Center 8503 Arlington Boulevard Fairfax, VA 22031	1831220714	08/24/2007	VA	suite 120LL
Lodi Community Hospital 225 Elyria Street Lodi, OH 44254	361303	08/24/2007	OH	N/A
Legacy Meridian Park Hospital 19260 SW 65th Avenue Suite 165 Tualatin, OR 97062	380089	08/24/2007	OR	N/A

Galion Community Hospital 269 Portland Way South Galion, OH 44833	361325	08/24/2007	OH	N/A
Oncology Hematology Associates of Central Illinois 8940 N. Wood Sage Road Peoria, IL 61615	616880	08/24/2007	IL	N/A
Mid Ohio Oncology/Hematology, Inc. 3100 Plaza Properties Boulevard Columbus, OH 43219	1376509661	08/24/2007	OH	N/A
Kentucky Imaging Center 3475 Richmond Road Lexington, KY 40509	1992876981	08/24/2007	KY	SUITE 150
Salem Community Hospital 1995 East State Street Salem, OH 44460	1639131535	08/24/2007	OH	N/A
Belmont Community Hospital 51339 National Road St. Clairsville, OH 43950	360153	08/24/2007	OH	N/A
Golder CT and MRI Center 613 North Golder Avenue Odessa, TX 79761	N/A	08/24/2007	TX	N/A
NSMS - Reedsburg, WI 2000 North Dewey Street Reedsburg, WI 53959	1295785097	08/24/2007	WI	N/A
MaineGeneral Medical Center 361 Old Belgrade Road Augusta, ME 04330	200039A	08/24/2007	ME	N/A
The Oklahoma PET Center, PLLC 5401 N. Portland Avenue Suite 330 Oklahoma City, OK 73112	569959716M	08/24/2007	OK	N/A
NSMS - Blytheville, AR 1520 North Division Street Blytheville, AR 72316	1295785079	08/24/2007	AR	N/A

NSMS - Benton, AR 1 Medical Park Drive Benton, AR 72015	1295785079	08/24/2007	AR	N/A
Mercy Health System 1000 Mineral Point Avenue Janesville, WI 53548	520066	08/24/2007	WI	N/A
WA Foote Memorial Hospital 205 N. East Avenue Jackson, MI 49201	230092	08/24/2007	MI	N/A
Northern MIchigan Hospital 416 Connable Avenue Petoskey, MI 49770	230105	08/24/2007	MI	N/A
Anchor Health Centers 800 Goodlette Road N. Naples, FL 34102	1174571608	08/24/2007	FL	Suite 130
New Ulm Medical Center 1324 5th North Street New Ulm, MN 56073	2880	08/24/2007	MN	N/A
Radiology Associates of Brooklyn LLP 2021 Avenue X Brooklyn, NY 11235-2905	1134244916	08/24/2007	NY	N/A
NYOH Mobile PET/CT Hudson 69 Prospect Road Hudson, NY 12534	1609863448	08/24/2007	NY	N/A
Integris Bass Baptist Health Center 600 South Monroe Enid, OK 73703	1144236571	08/24/2007	OK	N/A
Imaging Consultants Inc at Weymouth Woods 59 Performance Drive Weymouth, MA 2188	1487690335	08/24/2007	MA	N/A
St. Vincent Medical Center 2131 W. Third Street Los Angeles, CA 90057	50502	08/24/2007	CA	N/A

Caritas PET Imaging, LLC at Holyoke Medical Center 575 Beech Street Holyoke, MA 1040	327087	08/24/2007	MA	N/A
St. James Healthcare 400 South Clark Butte, MT 59701	270017	08/24/2007	MT	N/A
Inglewood Imaging Center 211 N. Prairie Avenue Inglewood, CA 90301	TD097	08/24/2007	CA	N/A
Duncan Regional Hospital 1700 Whisenant Drive Duncan, OK 73534	370023	08/24/2007	OK	PO Box 100
OhioHealth Ambulatory PET/CT 500 Thomas Lane Columbus, OH 43214	360006	08/24/2007	OH	N/A
Baylor Diagnostic Imaging Center at Junius 3900 Junius Street Suite 100 Dallas, TX 75246	450021	08/24/2007	TX	N/A
PET/CT Imaging at White Marsh 9900 Franklin Square Drive Suite D Nottingham, MD 21236	FMNX01	08/28/2007	MD	N/A
Central Baptist Diagnostic Center 100 Southland Drive Lexington, KY 40503	9375001	06/14/2006	KY	Suite B
Baptist Health Medical Center - NLR PET/CT 3500 Springhill Drive North Little Rock, AR 72117	5F437	05/03/2006	AR	Suite 100

Commonwealth Hematology Oncology 95 Bogle Office Park Drive Somerset, KY 42503	1285687178	03/21/2007	KY	N/A
Commonwealth Hematology Oncology 216 Southtown Drive Danville, KY 40422	1285687178	03/21/2007	KY	N/A
Jefferson Center City Imaging 850 Walnut Street Philadelphia, PA 19107	66277	09/07/2007	PA	N/A
EPIC Imaging Center 233 NE 102 Avenue Portland, OR 97220	0000WCGNQ	09/11/2007	OR	N/A
UPMC and The Washington Hospital Cancer Center 155 Wilson Avenue Washington, PA 15301	105589VXB	03/10/2006	PA	N/A
Lexington Diagnostic Center 1725 Harrodsburg Road Suite 100 Lexington, KY 40504	0406	03/08/2006	KY	N/A
UW PET Imaging Center 8007 Excelsior Drive Madison, WI 53717	1346266319	04/03/2007	WI	N/A
NorCal Imaging - Oakland 3200 Telegraph Avenue Oakland, CA 94609	ZZZ05319Z	08/22/2007	CA	N/A
NorCal Imaging – Walnut Creek 114 La Casa Via Suite #100 Walnut Creek, CA 94598	ZZZ05319Z	08/22/2007	CA	N/A

Aurora Sheboygan Memorial Imaging Center 2629 North 7th Street Sheboygan, WI 53083	520035	05/08/2008	WI	N/A
Aurora Memorial Hospital of Burlington 252 McHenry Street Burlington, WI 53105	520059	05/08/2008	WI	N/A
Aurora Medical Center - Manitowoc County 5000 Memorial Drive Two Rivers, WI 54241	520034	05/08/2008	WI	N/A
St. Mary's Medical Center 2900 First Avenue Huntington, WV 25702	510007	01/29/2009	WV	N/A
Lenox Hill Radiology & Medical Imaging 61 East 77th Street New York, NY 10021	W16681	01/29/2009	NY	N/A
NSMS - Greenville, IL 200 Health Care Drive Greenville, IL 62246	208196	01/29/2009	IL	N/A
Medical Outsourcing Services LLC-Christie Clinic 1801 West Windsor Road Champaign, IL 61821	211224	01/29/2009	IL	N/A
Dakota Radiology 2929 Fifth Street, First Floor Rapid City, SD 57701	1306892708	01/29/2009	SD	N/A
Coffeyville Regional Medical Center 1400 West Fourth Street Coffeyville, KS 67337	1285600379	01/29/2009	KS	N/A
St. Mary Medical Center 1201 Langhorne-Newtown Road Langhorne, PA 19047	390258	01/29/2009	PA	N/A

Medical Imaging Center at Windsor Oaks 1901 SE 18th Avenue Building 200A Ocala, FL 34471	97993	01/29/2009	FL	N/A
Alliance Imaging 2000 Hospital Drive Sedro-Woolley, WA 98284	8862377	01/29/2009	WA	N/A
Watauga Medical Center 336 Deerfield Road Boone, NC 28607	340051	01/29/2009	NC	N/A
Medical Outsourcing Services LLC 315 W. Old Key Dr. Peru, IN 46970	223260	01/29/2009	IN	N/A
Contemporary Imaging Associates 19900 Haggerty Road Suite 101 Livonia, MI 48152	ON63450	01/29/2009	MI	N/A
Greenwich Hospital 5 Perryridge Road Greenwich, CT 06830	70018	01/29/2009	CT	N/A
SMDC Health Systems 400 East Third Street Duluth, MN 55805	8200	01/29/2009	MN	N/A
Harris Regional Hospital 68 Hospital Road Sylva, NC 28779	340016	01/29/2009	NC	N/A
Community Memorial Hospital W180N8085 Town Hall Road Menomonee Falls, WI 53051	1609822881	01/29/2009	WI	N/A
LRI Lincoln Radiology Imaging 7121 Stephanie Lane Lincoln, NE 68516	99920	01/29/2009	NE	N/A
Bristol Hospital Brewster Road Bristol, CT 06010	70029	01/29/2009	CT	N/A

Mount Auburn Hospital 330 Mount Auburn Street Cambridge, MA 02138	220002	01/29/2009	MA	N/A
American Fork Hospital 170 N. 1100 E. American Fork, UT 84003	460023	01/29/2009	UT	N/A
Kentucky Imaging Center 3475 Richmond Road Suite 150 Lexington, KY 40509	1992876981	01/29/2009	KY	N/A
Bay Park Community Hospital 2801 Bay Park Drive Oregon, OH 43616	1457354318	01/29/2009	OH	N/A
Port Huron Hospital 1221 Pine Grove Avenue Port Huron, MI 48060	1457354318	01/29/2009	MI	N/A
Spring Branch Medical Center 8850 Long Point Road Houston, TX 77055	450630	01/29/2009	TX	N/A
Medical Outsourcing Services LLC 2210 Green Valley Road Suite 1 New Albany, IN 47150	248140	01/29/2009	IN	N/A
Medical Outsourcing Services LLC 355 Ridge Avenue Evanston, IL 60202	211222	01/29/2009	IL	N/A
Queens Hospital Center 82-68 164th Street Queens, NY 11432	330231	01/29/2009	NY	N/A
NYOH Mobile PET/CT Amsterdam 1700 Riverfront Center Amsterdam, NY 12010	1609863448	01/29/2009	NY	N/A
Providence Everett Medical Center 1717 13th Street Everett, WA 98201	500014	01/29/2009	WA	N/A

University of Miami/Sylvester Cancer Center 1475 NW 12th Avenue Miami, FL 33136	100079	01/29/2009	FL	N/A
St. Mary's Hospital Medical Center 1726 Shawano Avenue Green Bay, WI 54303	520097	01/29/2009	WI	N/A
Brazosport Regional Health System 100 Medical Drive Lake Jackson, TX 77566	450072	01/29/2009	TX	N/A
Medical Outsourcing Services LLC 1025 Maine Street Quincy, IL 62301	211224	01/29/2009	IL	N/A
The Imaging Center 499 Gloster Creek Village Suite G1 Tupelo, MS 38801	1417907536	01/29/2009	MS	N/A
NSMS - Forrest City, AR 1601 Newcastle Road Forrest City, AR 72336	1295785079	01/29/2009	AR	N/A
Glendale Adventist Medical Cent 1509 Wilson Terrace Glendale, CA 91206	1831188275	01/29/2009	CA	N/A
Mount Sinai Medical Center of Florida, Inc. 4300 Alton Road Miami Beach, FL 33140	100034	01/29/2009	FL	N/A
Cooper University Radiology 900 Centennial Boulevard Voorhees, NJ 08043	17983	01/29/2009	NJ	N/A
George Washington University Hospital 900 23rd Street, NW Washington, DC 10021	90001	01/29/2009	DC	N/A

Galesburg Cottage Hospital 695 N. Kellogg Street Galesburg, IL	1447221312	01/29/2009	IL	N/A
Central Florida Regional Hospital 1401 W. Seminole Boulevard Sanford, FL 32771	100161	01/29/2009	FL	N/A
Feather River Hospital 5974 Pentz Road Paradise, CA 95969	225	01/29/2009	CA	N/A
Caritas PET Imaging, LLC at Cooley Dickinson Hospital 30 Locust Street Northampton, MA 67337	1285846410	01/29/2009	MA	N/A
Shared PET Imaging, LLC for Garden City Hospital 272 West Warren Dearborn Heights, MI	1457354318	01/29/2009	MI	N/A
Florida Hospital Heartland Division -Sebring FL 4200 Sun N Lake Boulevard Sebring, FL 98284	100109	01/29/2009	FL	N/A
Good Samaritan Regional Center 700 E Norwegian Street Pottsville, PA 17901	1427050376	01/29/2009	PA	N/A
Austin Pet and Imaging Center 11044 Research Blvd D-100 Austin, TX 78759	1518928787	01/29/2009	TX	N/A
Ukiah Valley Medical Center 275 Hospital Drive Ukiah, CA 95482	50301	01/29/2009	CA	N/A
Longmont United Hospital 418 E. College Drive Cheyenne, WY 82007	60003	01/29/2009	WY	N/A
Grove City Medical Center 631 N Broad Street Grove City PA 16127	1023000296	01/29/2009	PA	N/A

Fulton Center Health Center 34555 Chagrin Boulevard Cleveland, OH 43567	361333	01/29/2009	OH	N/A
NSMS - Fairfield, IL 303 NW 11th Street Fairfield, IL 62837	1295785097	01/30/2009	IL	N/A
St Helena Hospital 10 Woodland Road St Helena, CA 94574	50013	01/30/2009	CA	N/A
Bayshore Medical Center 4000 Spencer Highway Pasadena, TX 77504	1174576698	01/30/2009	TX	N/A
RedBud Community Hospital 15630 18th Avenue Clearlake, CA 95422	51317	01/30/2009	CA	N/A
Taylor Regional Hospital 125 Greenbriar Drive Campbellsville, KY 42718	180087	01/30/2009	KY	N/A
St. Mary's Medical Center 901 St. Mary's Drive Evansville, IN 47750	150100	01/30/2009	IN	N/A
RUSH University Medical Center 1750 W Harrison Street Jones 106 Chicago, IL 60612	1932213600	01/30/2009	IL	N/A
Parkview Molecular Imaging 2428 Santa Monica Boulevard Suite #302 Santa Monica, CA 90404	G17328A	01/30/2009	CA	N/A
InSight Diagnostic Center 1121 8th Avenue Fort Worth, TX 76104	1932166105	01/30/2009	TX	N/A
Monongahela Valley Hospital 1163 Country Club Road Monongahela, PA 15063	390147	01/30/2009	PA	N/A

Florida Cancer Specialists/ Del Prado 811 Del Prado Boulevard Cape Coral, FL 33990	1760590962	01/30/2009	FL	N/A
MPHS 100 S. San Mateo Drive San Mateo, CA 94403	50007	01/30/2009	CA	N/A
Griffin Hospital 130 Division Street Derby, CT 6418	70031	01/30/2009	CT	N/A
West Jefferson Medical Center 1101 Medical Center Boulevard Marrero, LA 70072	190039	01/30/2009	LA	N/A
Mercy Hospital of Tiffin 485 West Market Street Tiffin, OH 44883	360089	01/30/2009	OH	N/A
Dr. Haroutioun S. Shahinian 10767 Gateway W El Paso, TX 79935	1639184005	01/30/2009	TX	N/A
Holston Valley Medical Center 130 W Ravine Road Kingsport, TN 37660	1457354318	01/30/2009	TN	N/A
Pinnacle Health Imaging at West Hanover 8012 Bretz Drive Harrisburg, PA 17112	390067	01/30/2009	PA	N/A
Indian Path Medical Center 2205 Pavilion Dr Kingsport, TN 37660	1457354318	01/30/2009	TN	N/A
Regional Medical Imaging 2486 Nerredia Flint, MI 48532	1457354318	01/30/2009	MI	N/A
Modesto Radiology Imaging 1524 Mchenry Avenue Suite 100 Modesto, CA 95350	ZZZ18519Z	01/30/2009	CA	N/A
Texas Cancer Clinic 9102 Floyd Curl Drive San Antonio, TX 78240	1316944655	01/30/2009	TX	N/A

Mercy Anderson Hospital 7500 State Road Cincinnati, OH 45255	1457354318	01/30/2009	OH	N/A
Henry Ford Macomb 15855 Nineteen Mile Rd Clinton Township, MI 48038	1457354318	01/30/2009	MI	N/A
Kennedy Outpatient Medical Imaging 900 Medical Center Drive Sewell, NJ 08080	310086	01/30/2009	NJ	N/A
Memorial Hermann Northeast 18955 Memorial North Humble, TX 77338	450684	01/30/2009	TX	N/A
Comprehensive Cancer Center;Cancer Specialists OK 3525 NW 56th Street C150 Oklahoma City, OK 73112	1013090075	01/30/2009	OK	N/A
RIS Lakeland 1305 Lakeland Hills Boulevard Lakeland, FL 33805	584	01/30/2009	FL	N/A
Bayshore Community Hospital 727 North Beers Street Holmdel, NJ 07733	310112	01/30/2009	NJ	N/A
Outpatient Radiology LLC 419 S. Washingont Street Suite 101 Casper, WY 82601	1396704474	01/30/2009	WY	N/A
University Hospital and Medical Center 7201 North University Drive Tamarac, FL 33321	1144274770	01/30/2009	FL	N/A
University Cancer Center, Huntsville 640 Interstate 45 N Huntsville, TX 77340	00Y285	01/30/2009	TX	N/A
San Jacinto Methodist Hospita 4401 Garth Road Baytown, TX 77521	450424	01/30/2009	TX	N/A

University Cancer Center, Brenha 605 Medical Court 101 Brenham, TX 77833	00Y285	01/30/2009	TX	N/A
Methodist Hospital I65 at 21st Street Indianapolis, IN 46206	150056	01/30/2009	IN	N/A
Mount Kisco Medical Group 34 S. Bedford Road Mount Kisco, NY 10549	MO0W067610	01/30/2009	NY	N/A
Danville Regional Medical Cente 142 South Main Street Danville, VA 24541	490075	01/30/2009	VA	N/A
Hammond Clinic 9800 Valparaiso Drive Munster, IN 46321	1457354318	01/30/2009	IN	N/A
Alliance Imaging - Auburn Regional Medical Center 202 North Division Street Auburn, WA 98001	8865493	01/30/2009	WA	N/A
University of Connecticut Health Center 263 Farmington Avenue Farmington, CT 06030	300001399	01/30/2009	CT	N/A
Clinch Valley Medical Center 2949 West Front Street Richlands, VA 24641	1871534297	01/30/2009	VA	N/A
St. Mary Corwin Medial Center 1008 Minnequa Avenue Pueblo, CO 81004	840405257	01/30/2009	CO	N/A
Insight Imaging-Saint John's Regional Medical Center 1700 N Rose Avenue Suite 110 Oxnard, CA 93030	TP044	01/30/2009	CA	N/A
Trinity Hospitals 407 3rd Street SE Minot, ND 58701	412002771	01/30/2009	ND	N/A

Morris County Imaging 310 Madison Avenue Morristown, NJ 07960	111293	01/30/2009	NJ	N/A
Lake Norman Regional Medical Center 171 Fairview Road Mooresville, NC 28117	34012	01/30/2009	NC	N/A
Medical Imaging of Fredericksbur 1201 Sam Perry Boulevard Suite 102 Fredericksburg, VA 2240	7242956	01/30/2009	VA	N/A
Medical Outsourcing Services LL 450 Chew Street Allentown, PA 18102	115171	01/30/2009	PA	N/A
Southeastern Regional Medical Center 300 West 27th Street Lumberton, NC 28358	340050	01/30/2009	NC	N/A
Meridian Health, Riverview Medical Center 1 Riverview Plaza Red Bank, NJ 07701	310034	01/30/2009	NJ	N/A
Shands Jacksonville 555 W. 8th Street Jacksonville, FL 32209	100001	01/30/2009	FL	N/A
Advantage Imaging, LLC 3733 Park East Drive Suite 100 Beachwood, OH 44139	1336359686	01/30/2009	OH	N/A
Marlette Regional Hospital 2770 Main Street PO Box 307 Marlette, MI 48453	231330	01/30/2009	MI	N/A
Lewisburg Cancer Center 75 Medical Park Drive Lewisburg, PA 17837	31076	01/30/2009	PA	N/A
New Jersey Diagnostics & Imagin 455 Jack Martin Boulevard Brick, NJ 08724	1710915483	01/30/2009	NJ	N/A

Medical Oncology Associates, P.S 6001 N Mayfair Street Spokane, WA 99208	GAB37015	01/30/2009	WA	N/A
DMS Imaging 10121 Pine Avenue Truckee, CA 96161	ZZZ05188Z	01/30/2009	CA	N/A
Northwest Medical Center 2801 N. State Road 7 Margate, FL 33063	100189	01/30/2009	FL	N/A
St. Joseph Hospital 1907 W. Sycamore Street Kokomo, IN 46904	1780625442	01/30/2009	IN	N/A
Mayo Clinic Jacksonville 4500 San Pablo Road Jacksonville, FL 32224	97325	01/30/2009	FL	N/A
Jewish Hospital 200 East Liberty Street Louisville, KY 40222	1457354318	01/30/2009	KY	N/A
Riverview Hospital Association 410 Dewey Street Wisconsin, Rapids WI 54495	520033	01/30/2009	WI	N/A
Quantum PET - Mt. Nittany Medical Center 1800 East Park Avenue State College, PA 16803	40635	01/30/2009	PA	N/A
Capital Medical Center 3900 Capital mall Drive Olympia, WA 98502	1841258639	01/30/2009	WA	N/A
Treasure Hills Imaging Center 2121 Pease Street Harlingen, TX 78550	FTA0091	01/30/2009	TX	N/A
King's Daughter's Hospital & Health Services One King's Daughters Drive Madison, IN 47250	1457354318	01/30/2009	IN	N/A
St. Luke's Hospital East Campus 85 Grand Avenue Fort Thomas, KY 41075	1457354318	01/30/2009	KY	N/A

Greenview Regional Hospital 1801 Ashley Circle Bowling Green, KY 42104	1457354318	01/30/2009	KY	N/A
TJ Samson Community Hospital 1301 N. Race Street Glasgow KY 42141	1457354318	01/30/2009	KY	N/A
Watson Clinic LLP 1600 Lakeland Hills Boulevard Lakeland FL 33805	162	01/30/2009	FL	N/A
Major Hospital 2455 Inteliplex Drive Shelbyville, IN 46176	1174555692	01/30/2009	IN	N/A
Carroll Precision Imaging Center 680A Poole Road Westminster, MD 21157	1598944761	01/30/2009	MD	N/A
Providence Hospital 16001 West Nine Mile Road PO Box 2043 Southfield, MI 48037	1144210253	01/30/2009	MI	N/A
Lexington Clinic 1221 South Broadway Lexington, KY 40504	169	01/30/2009	KY	N/A
St Francis Hospital 6161 S. Yale Avenue Tulsa, OK 74136	1457354318	01/30/2009	OK	N/A
Kingman Regional Imaging Center 1033 Sycamore Avenue Kingman, AZ 86409	30055	01/30/2009	AZ	N/A
Morrow County Hospital 651 West Marion Road Mount Gilead, OH 43338	361313	01/30/2009	OH	N/A
Alliance Imaging - Gritman Medical Center 700 South Main Street Moscow, ID 83843	17902911	01/30/2009	ID	N/A
Putnam Hospital Center 670 Stoneleigh Avenue Carmel, NY 10512	330273	01/30/2009	NY	N/A

Associated Medical Specialist, PA 817 Farrar Drive Conway, SC 29526	1063432391	01/30/2009	SC	N/A
South Valley Radiology 16633 Ventura Boulevard Suite 120 Encino, CA 91436	W18950	W18950	CA	N/A
Florida Cancer Institute 7651 Medical Drive Hudson, FL 34667	K4006	01/30/2009	FL	N/A
Albemarle Hospital 1144 N Road Street Elizabeth City, NC 27909	340109	01/30/2009	NC	N/A
Carilion New River Valley 2900 Lamb Circle Christiansburg, VA 24073	490042	01/30/2009	VA	N/A
Hope Diagnostic Imaging Center 2202 S. 77th Sunshine Strip Suite E Harlingen, TX 78550	FTNX12	01/30/2009	TX	N/A
Optima Diagnostic Imaging 8900 Wilshire Boulevard Beverly Hills, CA 90211	1659412757	01/30/2009	CA	N/A
John Randolph Medical Center 411 W. Randolph Road Hopewell, VA 23860	490020	01/30/2009	VA	N/A
Salem Hospital 665 Winter Street SE Salem, OR 97301	1265431829	01/30/2009	OR	N/A
Nacogdoches Medical Center 4920 NE Stallings Drive Nacogdoches, TX 75961	450656	01/30/2009	TX	N/A
Fairfield Diagnostic Imaging 1241 River Valley Boulevard Lancaster, OH 43130	1063472884	01/30/2009	OH	N/A
PET Imaging of Thornton 9461 Huron Street Thornton, CO 80260	183123486	01/30/2009	CO	N/A

East Bay Medical Oncology 4721 Dallas Ranch Road Antioch, CA 94513	1932107331	01/30/2009	CA	N/A
MultiCare Health System/ Tacoma General Hospital 316 Martin Luther King Way Tacoma,WA 98405	1366556227	01/30/2009	WA	N/A
University of Wisconsin- Hospital and Clinics 600 Highland Avenue Madison, WI 53792	520098	01/30/2009	WI	N/A
Open MRI and CT of South Miami, LLC 101 NW 1st Avenue Delray Beach, FL 33444	1457405060	01/30/2009	FL	N/A
Dearborn County Hospital 600 Wilson Creek Road Lawrenceburg, IN 47025	150086	01/30/2009	IN	N/A
Alliance Imaging Inc-Desert Imaging 118 Castellano Drive ElPaso, TX 79912	1639357213	01/30/2009	TX	N/A
NSMS - Hamburg, IA 209 Limestone Pass Cottage Grove, WI 53527	1295785079	01/30/2009	WI	N/A
NSMS - Memphis, MO Sigler Avenue RR #1 Box 53 Memphis, MO 63555	1295785079	01/30/2009	MO	N/A
Alliance Imaging - Hematology Oncology 715 W. North Avenue Melrose, Park IL 60160	216057	01/30/2009	IL	N/A
South Miami Hospital 6200 SW 73rd Street Miami, FL 33143	1982688230	01/30/2009	FL	N/A

The PET/CT Center of North Florida 2161 Kingsley Avenue Orange Park, FL 32073	1952320467	01/30/2009	FL	N/A
Ascent Diagnostic Imaging of Tamarac 7180 North University Drive Tamarac, FL 33321	AL571	01/30/2009	FL	N/A
Wilson Medical Center 1705 Tarboro Street SW Wilson, KY 41075	340126	02/02/2009	NC	N/A
Lexington Medical Center 811 W. Main Street Lexington, KY 42141	1457354318	02/02/2009	SC	N/A
Merced MRI 3365 G Street Suite 100 Merced, KY 42104	ZZZ19963Z	02/02/2009	CA	N/A
Memorial Diagnostic Center 2901 Swann Avenue Tampa, FL 33805	100206	02/02/2009	FL	N/A
The PET/CT Center of North Florida 1375 Roberts Road Jacksonville Beach, FL 46176	1932196243	02/02/2009	FL	N/A
The PET/CT Center of North Florida 300 Health Park Boulevard #100 St.Augustine, FL 32086	1861427155	02/02/2009	FL	N/A
Oncology Hematology West, P.C. 17201 Wright Street Suite 100 Omaha, NE 68130	1932178530	02/02/2009	NE	N/A
The PET/CT Center of North Florida 795 SW State Road 47 Lake City, FL 32025	1902893902	02/02/2009	FL	N/A

The PET/CT Center of North Florida 710 Lomax Street Jacksonville, FL 32204	1457529786	02/02/2009	FL	N/A
Provena Saint Joseph Medical Center 2000 Glenwood Avenue Joliet, IL 60435	140007	02/02/2009	IL	N/A
Montgomery County Advanced Medical Imaging, LLC 2701 Blair Mill Road Blairwood Building Suite 3 Willow Grove, PA 19090	1134315369	02/02/2009	PA	N/A
Medical Outsourcing Services LLC One Elizabeth Place Dayton, OH 45408	2391	02/02/2009	OH	N/A
Insight Diagnostic Imaging 750 N. Syringa Street Suite 104 Post Falls, ID 83854	1710089636	02/02/2009	ID	N/A
Hudson Valley Radiology Associates of Westchester 115 Main Street Tuckahoe, NY 10707	1174574115	02/02/2009	NY	N/A
Advocate Illinois Masonic Medical Center 3000 North Halsted Suite 100 Chicago, IL 60657	363196629	02/02/2009	IL	N/A
The PET/CT Center of North Florida 600 Zeagler Drive Palatka, FL 32177	1518986926	02/02/2009	FL	N/A
Baptist Memorial Outpatient Diagnostic Center 504 Azalea Drive Oxford, MS 38655	1053375576	02/02/2009	MS	N/A

Alliance Imaging - Great Falls Clinic 3000 15th Avenue South Great Falls, MT 59405	1790978146	02/02/2009	MT	N/A
Central DuPage Hospital 25 N Winfield Road Winfield, IL 60190	820800	02/02/2009	IL	N/A
Medical Outsourcing Services LLC 4932 W 95th Street Oak Lawn, IL 60453	211222	02/02/2009	IL	N/A
The Cancer Center at Lake Manassas 7901 Lake Manassas Drive Gainesville, VA 20155	1518024934	02/02/2009	VA	N/A
Zwanger-Pesiri Radiology, LLP 80 Maple Avenue Smithtown, NY 11787	W1391	02/02/2009	NY	N/A
Ohio Valey General Hospital 500 Pine Hollow Road McKees Rocks, PA 15136	390157	02/02/2009	OH	N/A
Rockwood Clinic Radiation Oncology 2410 E. Sinto Avenue Spokane Valley, WA 99216	356600	02/02/2009	WA	N/A
Regional West Medical Center 4021 Ave. B Scottsbluff, NE 69361	1639101199	02/02/2009	NE	N/A
DuPage Medical Group at Rickert 1100 W. 31st Street Downers Grove, IL 60515	1801833983	02/02/2009	IL	N/A
Medical Outsourcing Services LLC 2701 W. 68th Street Chicago, IL 60629	211222	02/02/2009	IL	N/A
Presbyterian Kaseman Hospital 8300 Constitution Avenue NE Albuquerque, NM 87110	320021	02/02/2009	NM	N/A

North Kansas City Hospital 2800 Clay Edwards Drive Parkville, MO 64116	260096	02/02/2009	MO	N/A
West Hernando Diagnostic Imaging 3315 Commercial Way Spring Hill, FL 34606	1174668305	02/02/2009	FL	N/A
NSMS - Robinson, IL 1000 N. Allen Street Robinson, IL 62454	1295785079	02/02/2009	IL	N/A
Memorial Hospital 715 South Taft Avenue Fremont OH 43420	360156	02/02/2009	OH	N/A
Samaritan Imaging Center 1245 Wilshire Boulevard Suite 205 Los Angeles, CA 90017	1538258116	02/02/2009	CA	N/A
Aurora West Alllis Medical Center 8901 West Lincoln Avenue West Allis, WI 53227	520139	02/02/2009	WI	N/A
Hematology & Oncology Specialists, LLC 39 Starbrush Circle Covington, LA 70433	5F818	02/02/2009	LA	N/A
DDIS-PB 3250 Westchester Avenue Bronx, NY 10461	w30661	02/02/2009	NY	N/A
Toledo Clinic, Inc. 4235 Secor Road Toledo, OH 43623	1144217894	02/02/2009	OH	N/A
CDSA 1421 Third Avenue New York, NY 10028	1982700951	02/02/2009	NY	N/A
Cancer Care Centers of South Texas 2130 NE Loop 410 Suite 100 San Antonio, TX 78217	1225064603	02/02/2009	TX	N/A

Saddleback Memorial Medical Center 24451 Healthcenter Drive Laguna Hills, CA 92653	50603	02/02/2009	CA	N/A
Marshfield Clinic 2116 Craig Road Eau Claire, WI 54701	390452970	02/02/2009	WI	N/A
Liberty Pacific Advanced Imaging 16130 Ventura Boulevard Encino, CA 91436	1962457812	02/02/2009	CA	N/A
SimonMed Imaging, Inc. 20830 N Tatum Blvd Suite 190 Phoenix, AZ 85050	1164460077	02/02/2009	AZ	N/A
Marshfield Clinic - Rice Lake Center 1700 West Stout Street Rice Lake, WI 54868	5090	02/02/2009	WI	N/A
Ingham Regional Medical Center 401 W. Greenlawn Avenue Lansing, MI 48910	230167	02/02/2009	MI	N/A
Space Coast Medical Associates LLP 490 N. Washington Avenue Titusville, FL 32796	1558329581	02/02/2009	FL	N/A
Ascent Diagnostic Imaging of Jacksonville 5210 Belfort Road Suite 130 Jacksonville, FL 32256	AL744	02/02/2009	FL	N/A
Milford Regional Medical Center 12 Prospect Street Milford, MA 01757	1477527497	02/02/2009	MA	N/A
The Cancer Team Bellin Health 1580 Commanche Avenue Green Bay, WI 54313	ESO114	02/02/2009	WI	N/A

Community Cance Center of North Florida 7000 NW 11th Place Gainsville, FL 32605	1205858354	02/02/2009	FL	N/A
Epic Care Dublin 6380 Clark Avenue Dublin, CA 94568	ZZZ39149Z	02/02/2009	CA	N/A
Cornerstone McLaughlin & Marte 3850 Tampa Road Palm Harbor, FL 44718	1174668305	02/03/2009	FL	N/A
Methodist Dallas Medical Center 1441 N. Beckley Avenue Dallas, TX 75203	1457354318	02/03/2009	TX	N/A
Methodist Charlton Medical Center 3500 W. Wheatland Road Dallas, TX 75737	1457354318	02/03/2009	TX	N/A
Riverview Hospital 395 Westfield Road Nobelsville, IN 46060	1457354318	02/03/2009	IN	N/A
North Bay Imaging 625 W. Baldwin Road Panama City, FL 32405	1639208366	02/03/2009	FL	N/A
University Medical Center 602 Indiana Avenue Lubbock, TX 79413	1821087164	02/03/2009	TX	N/A
Toms River X-Ray/CT/MRI Center 154 Highway 37 W Toms River, NJ 08755	540379	02/03/2009	NJ	N/A
St. Mary's Hospital Imaging Department 25500 Point Lookout Road Leonardtown, MD 20650	210028	02/03/2009	MD	N/A
Banner Good Samaritan PET Center 1111 E. McDowell Road Phoenix AZ 85006	H0016	02/03/2009	AZ	N/A

Saint Luke's Northland Hospital 4320 Wornall Road Suite 328 Kansas City, MO 64111	111111	02/03/2009	MO	N/A
Carmichael Imaging 6620 Coyle Avenue Suite 110 Carmichael, CA 95608	941694584	02/03/2009	CA	N/A
Phoebe Putney Memorial Hospital 2709 Meredyth Drive Albany, GA 31707	1710147210	02/03/2009	GA	N/A
Trinity MedicalCenter 800 Montclair Road Birmingham, AL 35213	10104	02/03/2009	AL	N/A
Diagnostic Clinic 1551 West Bay Drive Largo, FL 33770	36	02/03/2009	FL	N/A
Titus Regional Medical Center 2001 North Jefferson Avenue Mount Pleasant, TX 75455	1174526529	02/03/2009	TX	N/A
Snow Canyon Clinic 272 East Center Street Ivins, UT 84738	1235185645	02/03/2009	UT	N/A
Conway Medical Center 300 Singleton Ridge Road, PO Box 829 Conway, SC 29526	1134172000	02/03/2009	SC	N/A
Nazha Cancer Center 801 New Road Northfield, NJ 08225	1063698959	02/03/2009	NJ	N/A
CHRISTUS Central Louisiana Imaging Center 3704 North Boulevard Alexandria, LA 71301	190019	02/03/2009	LA	N/A
Cobre Valley Community Hospital 5880 S. Hospital Drive Globe, AZ 85501	31314	02/03/2009	AZ	N/A

Wuesthoff X-Ray and Lab at Baytree 7970 N. Wickham Road Melbourne, FL 32940	1538298344	02/03/2009	FL	N/A
Avera Holy Family 826 North 8th Street Estherville, IA 51334	1508810177	02/03/2009	IA	N/A
Hannibal Regional Hospital 6000 Hospital Drive Hannibal, MO 63401	260025	02/03/2009	MO	N/A
Alliance Imaging Dreyer Clinic 1221 North Highland Avenue Aurora, IL 60506	1235282344	02/03/2009	IL	N/A
Cancer Care 11100 Hefner Pointe Drive Oklahoma City, OK 73120	1295785392	02/03/2009	OK	N/A
Fisher-Titus Medical Center 272 Benedict Avenue Norwalk, OH 44857	360065	02/03/2009	OH	N/A
Oaklawn Hospital 200 North Madison Street Marshall, MI 49068	230217	02/03/2009	MI	N/A
Dixie Regional Medical Center 544 South 400 East St. George, UT 84790	460021	02/03/2009	UT	N/A
New Jersey Institute of Radiology 630 Broad Street Carlstadt, NJ 07072	115568	02/03/2009	NJ	N/A
Medical Diagnostic Imaging 4349 Treadaway Boulevard Abilene, TX 79602	1730387911	02/03/2009	TX	N/A
Richmond 2900 Richmond Avenue Houston, TX 77098	1730132234	02/03/2009	TX	N/A

Lafayette General Medical Center-LGI 1211 Coolidge Blvd Suite 201 Lafayette, LA 70503	1275536799	02/03/2009	LA	N/A
Ohio Cancer Specialists 1125 Aspira Court Mansfield, OH 44906	1316917040	02/03/2009	OH	N/A
Vantage Diagnostic Imaging 3400 W. Hefner Road Oklahoma City, OK 73120	400522173	02/03/2009	OK	N/A
Health Diagnostics 455 Hickey Boulevard #200 Daly City, CA 94015	1467611467	02/03/2009	CA	N/A
Physicians for Cure 795 SW State Road 47 Lake City, FL 32025	1770739104	02/03/2009	FL	N/A
Arkansas Cancer Center PET/CT 9601 Lile Drive Suite 106 Little Rock, AR 72205	1477535391	02/03/2009	AR	N/A
Southeast Georgia Health System 2415 Parkwood Drive Brusnwick, GA 31520	110025	02/03/2009	GA	N/A
Illinois Valley Community Hospital 925 West Street Peru, IL 61354	1457354318	02/03/2009	IL	N/A
Oncology Hematology Associates of Southwest IN 3699 Epworth Road Newburgh, IN 47630	1710150222	02/03/2009	IN	N/A
Sam Houston Cancer Center 112 Medical Park Lane Huntsville, TX 77340	00Z337	02/03/2009	TX	N/A
Silicon Valley Medical Imaging 2191 Mowry Avenue Suite 500-H Fremont, CA 94538	1376730358	02/03/2009	CA	N/A

RADS (Radiology and Diagnostic Services) 7160 W. 20th Avenue Suite M126 Hialeah, FL 33016	100187	02/03/2009	FL	N/A
Kaweah Delta Imaging Center 4949 W. Cypress Avenue Visalia, CA 93277	1588663769	02/03/2009	CA	N/A
University of South AL Mitchell Cancer Institute 1660 Springhill Avenue Mobile, AL 36604	H398	02/03/2009	AL	N/A
Murray-Calloway County Hospital 803 Poplar Street Murray, KY 42071	1073504981	02/03/2009	KY	N/A
Arizona Center for Hematology and Oncology 14674 W. Mountain View Boulevard #113 Surprise, AZ 85374	Z31627	02/03/2009	AZ	N/A
Wake Radiology Diagnostic Imaging, Inc. 300 Ashville Avenue Suite 180 Cary, NC 27518	1538123450	02/03/2009	NC	N/A
The Vancouver Clinic 700 NE 87th Avenue Vancouver, WA 98686	685900	02/03/2009	WA	N/A
Bronx-Lebanon Hospital Center 1650 Grand Concourse Bronx, NY 10457	1558461962	02/03/2009	NY	N/A
Evergreen Hemtology & Oncology, P.S. 309 E. Farwell Road Suite 100 Spokane, WA 99218	1255592218	02/03/2009	WA	N/A

NSMS - Parsons, KS 1902 59 Highway South Parsons, KS 67357	1295785079	02/03/2009	KS	N/A
Florida Cancer Specialists-Cornerstone 3850 Tampa Road Palm Harbor, FL 34684	1760590962	02/03/2009	FL	N/A
Town Center Imaging 21 Hospital Drive Suite 130 Palm Coast, FL 32164	1558530006	02/03/2009	FL	N/A
Memorial Hospital Of Carbondale 405 W. North Avenue Carbondale, IL 62901	1093801797	02/03/2009	IL	N/A
Herrin Hospital 201 South 14th Street Herrin, IL 62948	1093801797	02/03/2009	IL	N/A
Laughlin Memorial Hospital 1420 Tusculum Boulevard Greeneville, TN 37745	1881669778	02/03/2009	TN	N/A
Quantum PET - Hanover Hospital 300 Highland Avenue Hanover, PA 17331	40635	02/03/2009	PA	N/A
Parrish Medical Center 941 North Washington Avenue Titusville, FL 32796	1053424648	02/03/2009	FL	N/A
California Diagnostic Imaging Center, Inc. 828 South Grand Suite 107 Glendoro, CA 91740	TP113	02/03/2009	CA	N/A
NorCal Imaging - Pleasanton 5924 Stoneridge Drive Pleasanton, CA 94588	1578687166	02/03/2009	CA	N/A
Sadler Clinic 9305 Pinecroft Drive The Woodlands, TX 77380	1114979127	02/03/2009	TX	N/A

Medical Center Hospital 500 West 4th Street Odessa, TX 79760	450132	02/03/2009	TX	N/A
Cascade Medical Imaging 2500 NE Neff Road Bend, OR 97701	1194994145	02/03/2009	OR	N/A
Palos Community Hospital 15300 West Avenue Orland Park, IL 60462	1124276332	02/03/2009	IL	N/A
Lemmen Holton Cancer Pavilion 145 Michigan Street, NE Grand Rapids, MI 49503	230038	02/03/2009	MI	N/A
Houston Cancer Institute 1220 Blalock Suite 100 Houston, TX 77055	00N55X	02/03/2009	TX	N/A
Hudson Valley Hematology - Oncology Associates 19 Baker Avenue Suite 100 Poughkeepsie, NY 12601	1275615809	02/03/2009	NY	N/A
North Shore Radiology at Glen Cove, PC 10 Medical Plaza Suite 106 Glen Cove, NY 11542	1003024662	02/03/2009	NY	N/A
Cape Radiology 4011 Route 9 South PO Box 244 Rio Grande, NJ 08242	1972592194	02/03/2009	NJ	N/A
Frederick Imaging Centers, LLC 46 B Thomas Johnson Drive Suite 100 Frederick, MD 21702	1063699940	02/03/2009	MD	N/A
EP Medical Imaging Technology 10767 Gateway West Suite 520 El Paso, TX 79935	1508987165	02/03/2009	TX	N/A

Atlantis Diagnostics 1344 S. Apollo Boulevard Melbourne, FL 32901	1053382457	02/03/2009	FL	N/A
Tri-City PETCT at Vista 902 Sycamore Avenue #120 Vista, CA 92081	1154580348	02/03/2009	CA	N/A
Florida Cancer Specialists/Sarasota Downtown 1970 Golf Street Sarasota, FL 34236	1760590962	02/03/2009	FL	N/A
Arizona Oncology Associates - Biltmore 2222 East Highland Avenue Suite 130 Phoenix, AZ 85016	1235193459	02/03/2009	AZ	N/A
Las Vegas Radiology 7500 Smoke Ranch Suite 100 Las Vegas, NV 89128	1972714970	02/03/2009	NV	N/A
Medical Outsourcing Services 2900 W. 16th Street Bedford, IN 47421	1700812294	02/03/2009	IN	N/A
Town Center Imaging 21 Hospital Drive Suite 130 Palm Coast, FL 32164	1558530006	02/03/2009	FL	N/A
Memorial Hospital Of Carbondale 405 W. North Avenue Carbondale,IL 62901	1093801797	02/03/2009	IL	N/A
Herrin Hospital 201 South 14th Street Herrin, IL 62948	1093801797	02/03/2009	IL	N/A
Laughlin Memorial Hospital 1420 Tusculum Boulevard Greeneville, TN 37745	1881669778	02/03/2009	TN	N/A

Quantum PET - Hanover Hospital 300 Highland Avenue Hanover, PA 17331	40635	02/03/2009	PA	N/A
Parrish Medical Center 941 North Washington Avenue Titusville, FL 32796	1053424648	02/03/2009	FL	N/A
California Diagnostic Imaging Center, Inc. 828 South Grand Suite 107 Glendoro, CA 91740	TP113	02/03/2009	CA	N/A
NorCal Imaging - Pleasanton 5924 Stoneridge Drive Pleasanton, CA 94588	1578687166	02/03/2009	CA	N/A
Sadler Clinic 9305 Pinecroft Drive The Woodlands, TX 77380	1114979127	02/03/2009	TX	N/A
Medical Center Hospital 500 West 4th Street Odessa, TX 79760	450132	02/03/2009	TX	N/A
Cascade Medical Imaging 2500 NE Neff Road Bend, OR 97701	1194994145	02/03/2009	OR	N/A
Palos Community Hospital 15300 West Avenue Orland Park, IL 60462	1124276332	02/03/2009	IL	N/A
Lemmen Holton Cancer Pavilion 145 Michigan Street, NE Grand Rapids, MI 49503	230038	02/03/2009	MI	N/A
Houston Cancer Institute 1220 Blalock Suite 100 Houston, TX 77055	00N55X	02/03/2009	TX	N/A
Hudson Valley Hematology - Oncology Associates 19 Baker Avenue Suite 100 Poughkeepsie, NY 12601	1275615809	02/03/2009	NY	N/A

North Shore Radiology at Glen Cove, PC 10 Medical Plaza Suite 106 Glen Cove, NY 11542	1003024662	02/03/2009	NY	N/A
Cape Radiology 4011 Route 9 South PO Box 244 Rio Grande, NJ 08242	1972592194	02/03/2009	NJ	N/A
Frederick Imaging Centers, LLC 46 B Thomas Johnson Drive Suite 100 Frederick, MD 21702	1063699940	02/03/2009	MD	N/A
EP Medical Imaging Technology 10767 Gateway West Suite 520 El Paso, TX 79935	1508987165	02/03/2009	TX	N/A
Atlantis Diagnostics 1344 S Apollo Boulevard Melbourne, FL 32901	1053382457	02/03/2009	FL	N/A
Tri-City PETCT at Vista 902 Sycamore Avenue #120 Vista, CA 92081	1154580348	02/03/2009	CA	N/A
Florida Cancer Specialists/Sarasota Downtown 1970 Golf Street Sarasota, FL 34236	1760590962	02/03/2009	FL	N/A
Arizona Oncology Associates - Biltmore 2222 East Highland Avene Suite 130 Phoenix, AZ 85016	1235193459	02/03/2009	AZ	N/A
Las Vegas Radiology 7500 Smoke Ranch Suite 100 Las Vegas, NV 89128	1972714970	02/03/2009	NV	N/A
Medical Outsourcing Services 2900 W. 16th Street Bedford, IN 47421	1700812294	02/03/2009	IN	N/A

Addendum XIII
Medicare-Approved Ventricular Assist Device (Destination Therapy) Facilities
[October Through December 2009]

On October 1, 2003, we issued our decision memorandum on ventricular assist devices for the clinical indication of destination therapy. We determined that ventricular assist devices used as destination therapy are reasonable and necessary only if performed in facilities that have been determined to have the experience and infrastructure to ensure optimal patient outcomes. We established facility standards and an application process. All facilities were required to meet our standards in order to receive coverage for ventricular assist devices implanted as destination therapy.

VAD Destination Therapy Facilities

The following facilities have met the CMS facility standards for destination therapy VADs.

Facility	Provider Number	Date Approved	State	Other Information
Advocate Christ Medical Center 4440 W 95th Street Oak Lawn, Illinois	140208	12/17/2003	IL	Joint Commission Certified on 05/26/2007
California Pacific Medical Center 2333 Buchanan Street San Francisco, California	050047	03/19/2004	CA	
Baptist Memorial Hospital 6019 Walnut Grove Road Memphis, Tennessee	440048	04/07/2004	TN	
Duke University Medical Center DUMC Box 3943 Durham, North Carolina	340030	10/31/2003	NC	
Fairview-University Medical Center 2450 Riverside Avenue Minneapolis, Minnesotta	240080	10/28/2003	MN	
Allegheny General Hospital 320 E North Avenue Pittsburgh, Pennsylvania	390050	12/10/2003	PA	Joint Commission Certified on 03/28/2008
Barnes-Jewish Hospital One Barnes-Jewish Hospital Plaza Saint Louis, Missouri	260032	10/27/2003	MO	Joint Commission Certified on 08/22/2008

Brigham and Women's Hospital 15 Francis Street Boston, Massachusetts	220110	01/09/2004	MA	
Bryan LGH Medical Center East 1600 S 48 Street Lincoln, Nebraska	280003	10/23/2003	NE	
Cedars-Sinai Medical Center 8700 Beverly Boulevard Los Angeles, California	050625	12/29/2003	CA	
Clarian Health Partners, Inc. 1701 N. Senate Avenue Indianapolis, Indiana	150056	11/25/2003	IN	
Cleveland Clinic 9500 Euclid Avenue Cleveland, Ohio	360180	12/03/2003	OH	
Hahnemann University Hospital Broad and Vine Streets Philadelphia, Pennsylvania	390290	12/22/2003	PA	Joint Commission Certified on 09/19/2008
Hospital of the University of Pennsylvania 3400 Spruce Street Philadelphia, Pennsylvania	390111	10/28/2003	PA	Joint Commission Certified on 05/23/2008
Henry Ford Hospital 2799 W. Grand Boulvard Detroit, Michigan	230053	01/06/2004	MI	
Inova Fairfax Hospital 3300 Gallows Road Falls Church, Virginia	490063	03/31/2004	VA	

Jewish Hospital 200 Abraham Flexner Way Louisville, Kentucky	180040	11/10/2003	KY	
Jackson Memorial Hospital 1611 NW 12th Avenue Miami, Florida	100022	01/12/2004	FL	University of Miami
LDS Hospital 8th Avenue and C Street Salt Lake City, Utah	460010	10/23/2003	UT	
Johns Hopkins Hospital 600 N. Wolfe Street Baltimore, Maryland	210009/1790700904	10/28/2003	MD	Joint Commission Certified on 07/09/2008
Loyola University Medical Center 2160 S. 1st Avenue Maywood, Illinois	140276	01/30/2004	IL	
Lutheran Hospital of Indiana 7950 W. Jefferson Boulevard Fort Wayne, Indiana	150017	10/29/2003	IN	
Massachusetts General Hospital 55 Fruit Street Boston, Massachusetts	220071	12/15/2003	MA	
Mayo Clinic 4500 San Pablo Road Jacksonville, Florida	100151	11/06/2003	FL	
Medical City Dallas Hospital 7777 Forest Lane Dallas, Texas	450647	12/03/2003	TX	

The Methodist Hospital 6565 Fannin Street Houston, Texas	450358	11/03/2003	TX	
Montefiore Medical Center 111 E. 210th Street Bronx, New York	330059	11/14/2003	NY	
Methodist Specialty and Transplant Hospital 8026 Floyd Curl Drive San Antonio, Texas	450388	11/19/2003	TX	
Newark Beth Israel Medical Center 201 Lyons Avenue Newark, New Jersey	310002	11/14/2003	NJ	
Mount Sinai Medical Center 1190 5th Avenue New York, New York	330024	11/25/2003	NY	
New York-Presbyterian Hospital 177 Fort Washington Avenue New York, New York	330101	10/28/2003	NY	Columbia University Medical Center
Ohio State University Medical Center 410 W. 10th Avenue Columbus, Ohio	360085	11/12/2003	OH	
Oregon Health and Sciences University 3181 SW Sam Jackson Park Road Portland, Oregon	380009	11/21/2003	OR	
OSF St Francis Medical Center 530 NE Glen Oak Avenue Peoria, Illinois	140067	11/12/2003	IL	

Penn State Milton S Hershey Medical Center 500 University Drive Hershey, Pennsylvania	390256	10/29/2003	PA	Joint Commission Certified on 05/19/2008
Rush-Presbyterian-St Luke Medical Center 1653 W Congress Parkway Chicago, Illinois	140119	11/14/2003	IL	
Sentara Norfolk General Hospital 600 Gresham Drive Norfolk, Virginia	490007	11/10/2003	VA	
Sacred Heart Medical Center 101 W 8th Avenue Spokane, Washington	500054	01/12/2004	WA	
Seton Medical Center 1201 W. 38th Street Austin, Texas	450056	01/13/2004	TX	
Shands at the University of Florida 1600 SW Archer Road Gainesville, Florida	100113	11/26/2003	FL	
Sharp Memorial Hospital 7901 Frost Street San Diego, California	050100	12/01/2003	CA	Joint Commission Certified on 07/18/2008
Stanford University Hospital and Clinics 300 Pasteur Drive Stanford, California	050441	12/22/2003	CA	Stanford University Medical Center
St Francis Hospital 6161 S. Yale Avenue Tulsa, Oklahoma	370091	01/09/2004	OK	

St Luke's Medical Center 2900 W Oklahoma Avenue Milwaukee, Wisconsin	520138	11/03/2003	WI	
St Luke's Episcopal Hospital 6720 Bertner Avenue Houston, Texas	450193	10/28/2003	TX	
St Vincent Hospital and Health Services 2001 W. 86th Street Indianapolis, Indiana	150084	01/05/2004	IN	
St Paul Medical Center 5909 Harry Hines Boulevard Dallas, Texas	450044	12/10/2003	TX	
Strong Memorial Hospital 601 Elmwood Avenue Rochester, New York	330285	10/29/2003	NY	Joint Commission Certified on 06/18/2008
Tampa General Hospital 2 Columbia Drive Tampa, Florida	100128	11/26/2003	FL	
Temple University Hospital 3401 N. Broad Street Philadelphia, Pennsylvania	390027	11/03/2003	PA	
Tufts-New England Medical Center 750 Washington Street Boston, Massachusetts	220116	11/06/2003	MA	
UCLA Medical Center 10833 Le Conte Avenue Los Angeles, California	050262	12/10/2003	CA	

University Medical Center 1501 N. Campbell Avenue Tucson, Arizonia	030064	10/29/2003	AZ	
University of Alabama at Birmingham Health System 500 22nd Street S Birmingham, Alabama	010033	10/29/2003	AL	
University of Colorado Hospital 4200 E. Ninth Avenue Denver, Colorado	060024	11/06/2003	CO	9th & Colorado Campus Joint Commission Certified on 07/23/2008
The University of Chicago Hospitals and Health System 5841 South Maryland Avenue Chicago, Illinois	140088	02/25/2004	IL	
University of Iowa Hospitals and Clinics 200 Hawkins Drive Iowa City, Iowa	160058	11/12/2003	IA	
University of Maryland Medical Center 22 S. Greene Street Baltimore, Maryland	210002	11/12/2003	MD	
University of Michigan Health System 1500 E. Medical Center Drive Ann Arbor, Michigan	230046	10/27/2003	MI	Joint Commission Certified on 03/28/2008
University of North Carolina Hospitals 101 Manning Drive Chapel Hill, North Carolina	340061	05/05/2004	NC	

University of Utah Hospital 50 N Medical Drive Salt Lake City, Utah	460009	12/22/2003	UT	
University of Virginia Health System 1215 Lee Street Charlottesville, Virginia	490009	01/12/2004	VA	
University of Washington Medical Center 1959 NE Pacific Street Seattle, Washington	500008	01/15/2004	WA	
University of Wisconsin Hospitals and Clinics 600 Highland Avenue Madison, Wisconsin	520098	12/03/2003	WI	
USC University Hospital 1500 San Pablo Los Angeles, California	050696	01/09/2004	CA	
UPMC Presbyterian 200 Lothrop Street Pittsburgh, Pennsylvania	390164	10/23/2003	PA	Joint Commission Certified on 06/11/2008
Virginia Commonwealth University Medical Center 401 North 12th Street Richmond, Virginia	490032	04/08/2004	VA	Medical College of Virginia Hospitals
Vanderbilt University Medical Center 1161 21st Avenue S Nashville, Tennessee	440039	10/28/2003	TN	
Ochsner Clinic Foundation 1514 Jefferson Highway New Orleans, Louisiana	190036	06/29/2004	LA	

Baylor University Medical Center 3500 Gaston Avenue Dallas, TX	N/A	10/04/2007	TX	Joint Commission Certified on 10/04/2007
The University of Michigan Hospitals and Health Centers 1500 East Medical Center Drive Ann Arbor, MI	230046	03/28/2008	MI	Joint Commission Certified on03/28/200/
Saint Mary's Hospital 1216 Southwest Second Street Rochester, MN	N/A	02/27/2008	MN	Joint Commission Certified on 02/27/2008
Allegheny General Hospital 320 East North Avenue Pittsburgh, PA	N/A	03/08/2008	PA	
Washington Hospital Center 110 Irving Street, NW Washington, DC	09-0011	04/23/2008	DC	Joint Commission Certified on 04/23/2008
Integris Baptist Medical Center 3300 Northwest Expressway Oklahoma City, OK	1831103654	08/13/2008	OK	Joint Commission Certified on 08/13/08
Mayo Clinic Hospital 5777 East Mayo Boulevard Phoenix, AZ	030103	02/27/2009	AZ	Joint Commission Certified on 02/27/09
Northwestern Memorial Hospital 251 E. Huron Street Chicago, IL	140281	03/17/2009	IL	Joint Commission Certified on 03/17/09
Lancaster General Hospital 555 North Duke Street Lancaster, PA	390100	05/20/2009	PA	Joint Commission certified on 05/20/09

Hartford Hospital 80 Seymour Street Hartford, CT	070025	05/29/2009	CT	Joint Commission certified on 05/29/09
Morristown Memorial Hospital 100 Madison Avenue Morristown, NJ	310015	06/17/09	NJ	Joint Commission certified on 6/17/09
Thomas Jefferson University Hospital 111 South 11th Street Philadelphia, PA	390174	08/05/09	PA	Joint Commission certified on 8/5/09
Emory University Hospital 1364 Clifton Road Atlanta, GA	110010	08/19/09	GA	Joint Commission certified on 8/19/09
Maine Medical Center 22 Bramhall Street Portland, ME	200009	02/03/09	ME	Joint Commission certified on 02/03/09

Addendum XIV
Lung Volume Reduction Surgery (LVRS)
[October Through December 2009]

Three types of facilities are eligible for reimbursement for Lung Volume Reduction Surgery (LVRS): National Emphysema Treatment Trial (NETT) approved (Beginning 05/07/2007, these will no longer automatically qualify and can qualify only with the other programs), Credentialed by the Joint Commission (formerly, the Joint Commision on Accreditation of Healthcare Organizations (JCAHO)) under their Disease Specific Certification Program for LVRS, and Medicare approved for lung transplants. Only the first two types are in the list.

Facility name	Date approved	State	Type of Certification
Baylor College of Medicine Houston, Texas	N/A	TEXAS	NETT
Brigham and Women's Hospital Boston, MA	N/A	MASSACHUSETTS	NETT
Cedars-Sinai Medical Center Los Angeles, CA	N/A	CALIFORNIA	NETT
Chapman Medical Center Orange, CA	N/A	CALIFORNIA	NETT
Cleveland Clinic Foundation Cleveland, OH	N/A	OHIO	NETT

Columbia University New York, NY	N/A	NEW YORK	NETT
Duke University Medical Center Durham, NC	N/A	NORTH CAROLINA	NETT
Johns Hopkins Hospital Baltimore, MD	N/A	MARYLAND	NETT
Kaiser Foundation Hospital - Riverside Riverside, CA	09/20/2006	CALIFORNIA	Joint Commssion
Long Island Jewish Medical Center New Hyde Park, NY	N/A	NEW YORK	NETT
Mayo Clinic Rochester, MN	N/A	MINNESOTA	NETT
Memorial Medical Center Springfield, IL	12/13/2006	ILLINOIS	Joint Commssion
National Jewish Medical Center Denver, CO	N/A	COLORADO	NETT
The Ohio State University Hospital Columbus, OH	N/A	OHIO	Joint Commssion
Ohio State University Medical Center Columbus, OH	N/A	OHIO	NETT
Saint Louis University Saint Louis, MO	N/A	MISSOURI	NETT
Temple University Hospital Philadelphia, PA	08/23/2008	PENNSYLVANIA	Joint Commission
UCLA Medical Center Los Angeles, CA	N/A	CALIFORNIA	NETT
University of California, San Diego San Diego, CA	N/A	CALIFORNIA	NETT

University of Maryland Medical Center Baltimore, MD	N/A	MARYLAND	NETT
University of Michigan Medical Center Ann Arbor, MI	N/A	MICHIGAN	Joint Commission
University of Pennsylvania Philadelphia, PA	N/A	PENNSYLVANIA	NETT
University of Pittsburgh Pittsburgh, PA	N/A	PENNSYLVANIA	NETT
University of Washington Seattle, WA	N/A	WASHINGTON	NETT
Washington University/Barnes Hospital Saint Louis, MO	N/A	MISSOURI	Joint Commission
Allegheny General Hospital Pittsburgh, PA	04/23/2008	PENNSYLVANIA	Joint Commission

Addendum XV—Medicare-Approved Bariatric Surgery Facilities

On February 21, 2006, we issued our decision memorandum on bariatric surgery procedures. We determined that bariatric surgical procedures are reasonable and necessary for Medicare beneficiaries who have a body-mass index (BMI) greater than or equal to 35, have at least one co-morbidity related to obesity, and have been previously unsuccessful with medical treatment for obesity.

This decision also stipulated that covered bariatric surgery procedures are reasonable and necessary only when performed at facilities that are: (1) certified by the American College of Surgeons (ACS) as a Level 1 Bariatric Surgery Center (program standards and requirements in effect on February 15, 2006); or (2) certified by the American Society for Bariatric Surgery (ASBS) as a Bariatric Surgery Center of Excellence (BSCOE) (program standards and requirements in effect on February 15, 2006).

The following facilities have met our minimum facility standards for bariatric surgery and have been certified by American College of Surgeons (ACS) or American Society for Metabolic and Bariatric Surgery (ASMBS).

Facility Name	Provider Number	Date Approved	State	Other Information
Evanston Northwestern Hospital 2650 Ridge Avenue Suite 1308 Evanston, IL 60201	140010	01/26/2006	IL	ACS
Chapman Medical Center 2601 East Chapman Avenue Orange, CA 92646	05-0745	02/21/2006	CA	ASMBS
St Vincent Carmel Hospital 13430 Old Meridian Street Suite 168 Carmel, IN 46032	15-0157	02/21/2006	IN	ASMBS
Abbott Northwestern Hospital 800 E. 28th Street Minneapolis, MN 55407	N/A	02/24/2006	MN	ASMBS
Alexian Brothers Medical Center 800 Biesterfield Road Elk Grove Village, IL 60007	N/A	02/24/2006	IL	ASMBS
American Bariatric Institute at Doctors' Hospital 1130 Louisiana Avenue Shreveport, LA 71101	N/A	02/24/2006	LA	ASMBS
Arnot Ogden Medical Center 600 Fitch Street Elmira, NY 14905	330090	02/24/2006	NY	ASMBS

AtlantiCare Regional Medical Center 2500 English Creek Avenue Egg Harbor Township, NJ 08234	N/A	02/24/2006	NJ	Center for Surgical Weight Loss and Wellness Salartash Surgical Associates ASMBS
Atlanta Medical Center 303 Parkway Drive NE Atlanta, GA 30312	N/A	02/24/2006	GA	ASMBS
Aurora Sinai Medical Center 945 N. 12th Street Milwaukee, WI 53211	N/A	02/24/2006	WI	ASMBS
Baptist Memorial Hospital North Mississippi 2301 South Lamar Boulevard Oxford, MS 38655	N/A	02/24/2006	MS	ASMBS
Bellin Health 215 N. Webster Avenue Green Bay, WI 54301	N/A	02/24/2006	WI	ASMBS
Bon Secours Community Hospital 160 E. Main Street Port Jervis, NY 12771	N/A	02/24/2006	NY	ASMBS
California Pacific Medical Center 2333 Buchanan Street San Francisco, CA 94115	N/A	02/24/2006	CA	ASMBS
Cape Fear Valley Health System 1638 Owen Drive Fayetteville, NC 28304	N/A	02/24/2006	NC	ASMBS
Centennial Center for the Treatment of Obesity 2300 Patterson Street Nashville, TN 37203	N/A	02/24/2006	TN	ASMBS

Cleveland Clinic Hospital-Weston 3100 Weston Road Weston, FL 33331	N/A	02/24/2006	FL	ASMBS
Christus Schumpert Health System 1 Saint Mary Place Shreveport, LA 71101	N/A	02/24/2006	LA	ASMBS
Citizen's Bariatric Center 2701 Hospital Avenue Victoria, TX 77901	N/A	02/24/2006	TX	ASMBS
Columbia-St. Mary's Bariatric Center 2025 E. Newport Avenue Milwaukee, WI 53211	N/A	02/24/2006	WI	ASMBS
Community Hospital Monterey Peninsula 23625 Holman Highway Monterey, CA 93940	N/A	02/24/2006	CA	ASMBS
Crestwood Medical Center One Hospital Drive Huntsville, AL 35801	N/A	02/24/2006	AL	ASMBS
Cypress Fairbanks Medical Center Hospital 10655 Steepletop Drive Houston, TX 77065	450716	02/24/2006	TX	ASMBS
Danbury Hospital 24 Hospital Avenue Danbury, CT 06810	N/A	02/24/2006	CT	ACS
East Texas Medical Center 1000 S. Beckman Avenue Tyler, TX 75701	N/A	02/24/2006	TX	ASMBS

Eastern Maine Medical Center 905 Union Street EMH Mall Suite 11 Bangor, ME 04401	200033	02/24/2006	ME	ASMBS
Elmbrook Memorial Hospital 19333 W. North Avenue Brookfield, WI 53045	N/A	02/24/2006	WI	ASMBS
Emory Dunwoody Medical Center 4575 N. Shallowford Road Atlanta, GA 30338	N/A	02/24/2006	GA	ASMBS
Florida Hospital Celebration Health 400 Celebration Place Kissimmee, FL 34747	N/A	02/24/2006	FL	ASMBS
Florida Medical Center 4850 W. Oakland Boulevard Lauderdale Lakes, FL 33313	N/A	02/24/2006	FL	ASMBS
Froedtert Memorial Lutheran Hospital 9200 W. Wisconsin Avenue Milwaukee, WI 53226	N/A	02/24/2006	WI	Medical College of Wisconsin ASMBS
Frye Regional Medical Center 420 N. Center Street Hickory, NC 28601	N/A	02/24/2006	NC	ASMBS
Geisinger Medical Center 100 North Academy Avenue Danville, PA 17822	390006	N/A	PA	ASMBS- 02/24/2006 ACS-01/26/2007
Good Samaritan Hospital 375 Dixmyth Avenue Cincinnati, OH 45220	N/A	02/24/2006	OH	ASMBS

Grandview Medical Center 405 Grand Avenue Dayton, OH 45405	N/A	02/24/2006	OH	ASMBS
Greater Baltimore Medical Center 6701 N. Charles Street Baltimore, MD 21204	N/A	02/24/2006	MD	ASMBS
Hamilton Medical Center 1200 Memorial Drive Dalton, GA 30720	N/A	02/24/2006	GA	ASMBS
Hennepin County Medical Center 701 Park Avenue Minneapolis, MN 55415	N/A	02/24/2006	MN	ASMBS
Holy Cross Hospital 4725 N. Federal Highway Fort Lauderdale, FL 33308	N/A	02/24/2006	FL	ASMBS
Hospital of Saint Raphael 1450 Chapel Street New Haven, CT 06511	N/A	02/24/2006	CT	ASMBS
Huntington Memorial Hospital 100 W. California Boulevard Pasadena, CA 91105	N/A	02/24/2006	CA	ASMBS
Jupiter Medical Center 1210 S. Old Dixie Highway Jupiter, FL 33458	N/A	02/24/2006	FL	ASMBS
King's Daughters Medical Center 617 23rd Street Ashland, KY 41101	N/A	02/24/2006	KY	ASMBS

Legacy Good Samaritan Hospital and Medical Center 1015 NW 22nd Avenue Portland, OR 97210	N/A	02/24/2006	OR	ASMBS
Lexington Medical Center 2720 Sunset Boulevard West Columbia, SC 29169	N/A	02/24/2006	SC	ASMBS
Little Company of Mary 2800 W. 95th Street Evergreen Park, IL 60805	N/A	02/24/2006	IL	ASMBS
Lutheran Medical Center 150 55th Street Brooklyn, NY 11220	29D361	02/24/2006	NY	ACS
Medical University of South Carolina 171 Ashley Avenue Charleston, SC 29425	N/A	02/24/2006	SC	ASMBS
Memorial Hermann Hospital 6411 Fannin Street Houston, TX 77030	N/A	02/24/2006	TX	ASMBS
Memorial Hospital 2525 DeSales Avenue Chattanooga, TN 37404	N/A	02/24/2006	TN	ASMBS
Mercy Hospital Miami 3663 South Miami Avenue Miami, FL 33133	N/A	02/24/2006	FL	ASMBS
Mercy San Juan Medical Center 6501 Coyle Avenue Carmichael, CA 95608	N/A	02/24/2006	CA	ASMBS

Metabolic Surgery Center at Baptist Hospital 2011 Church Street Nashville, TN 37203	N/A	02/24/2006	TN	ASMBS
Methodist Dallas Medical Center PO Box 655999 Dallas, TX 75265-5999	N/A	02/24/2006	TX	Texas Bariatric Center ASMBS
Methodist Healthcare System 8109 Fredricksburg Road San Antonio, TX 78229	N/A	02/24/2006	TX	ASMBS
Methodist Hospital 6500 Excelsior Boulevard Saint Louis Park, MN 55426	N/A	02/24/2006	MN	ASMBS
Middlesex Hospital 28 Crescent Street Middletown, CT 06457	N/A	02/24/2006	CT	ASMBS
Methodist Hospital of Southern California 300 West Huntington Drive Arcadia, CA 91007	N/A	02/24/2006	CA	ASMBS
Mills-Peninsula Health Services 1783 El Camino Real Burlingame, CA 94010	N/A	02/24/2006	CA	ASMBS
New Hanover Regional Medical Center 2131 S. 17th Street Wilmington, NC 28401	N/A	02/24/2006	NC	ASMBS

New York Methodist Hospital 506 Sixth Street Brooklyn, NY 11215	N/A	02/24/2006	NY	ASMBS
North Hills Hospital 4401 Booth Calloway Road North Richland Hills, TX 76180	N/A	02/24/2006	TX	ASMBS
North Colorado Medical Center 1801 16th Street Greeley, CO 80631	N/A	02/24/2006	CO	ASMBS
North Vista Hospital 1409 E. Lake Mead Boulevard North Las Vegas, NV 89101	N/A	02/24/2006	NV	ASMBS
Northeast Georgia Health System, Inc. 743 Spring Street NE Gainesville, GA 30501	N/A	02/24/2006	GA	ASMBS
NorthEast Medical Center 920 Church Street N. #302E Concord, NC 28025	N/A	02/24/2006	NC	ASMBS
Northwestern Memorial Hospital 215 E. Huron Street, NE Chicago, IL 60611	N/A	02/24/2006	IL	Northwestern Medical Faculty Foundation ASMBS
Ocala Regional Medical Center 1431 SW 1st Street Ocala, FL 34474	N/A	02/24/2006	FL	ASMBS
Palms of Pasadena Hospital 1501 Pasedena Avenue St. Petersburg, FL 33707	N/A	02/24/2006	FL	ASMBS
Orange Coast Memorial Medical Center 9920 Talbert Avenue Fountain Valley, CA 92708	N/A	02/24/2006	CA	ASMBS
Parkwest Medical Center 9352 Park West Boulevard Knoxville, TN 37923	N/A	02/24/2006	TN	ASMBS

Penrose-St. Francis Health Services 825 E. Pikes Peak Avenue Colorado Springs, CO 80917	N/A	02/24/2006	CO	ASMBS
Poudre Valley Hospital 1024 S. Lemay Avenue Fort Collins, CO 80524	N/A	02/24/2006	CO	ASMBS
Presbyterian-St. Luke's Medical Center 1719 E. 19th Avenue Denver, CO 80218	N/A	02/24/2006	CO	ASMBS
Princeton HealthCare System 253 Witherspoon Street Princeton, NJ 08540	N/A	02/24/2006	NJ	ASMBS
Roger Williams Medical Center 825 Chalkstone Avenue Providence, RI 02908	N/A	02/24/2006	RI	Drs. Lentrichia & Pohl, Inc. ASMBS
Rose Medical Center 4545 E. 9th Avenue, #470 Denver, CO 80220	N/A	02/24/2006	CO	ASMBS
Saint Barnabas Medical Center 94 Old Short Hills Road Livingston, NJ 07039	N/A	02/24/2006	NJ	ASMBS
Saint Francis Hospital 5959 Park Avenue Memphis, TN 38119	N/A	02/24/2006	TN	ASMBS
St. Francis Hospital - Franciscan Health System 34515 Ninth Avenue S. Federal Way, WA 98003	N/A	02/24/2006	WA	N/A
Saint Joseph East Center for Weight Loss 160 N. Eagle Creek Drive Lexington, KY 40509	N/A	02/24/2006	KY	ASMBS

Saint Mary's Regional Medical Center 234 W. 6th Street Reno, NV 89503	N/A	02/24/2006	NV	ASMBS
Saint Mary's Hospital 5801 Bremo Road Richmond, VA 23226	N/A	02/24/2006	VA	ASMBS
Scottsdale Healthcare Shea Campus 900 E. Shea Boulevard Scottsdale, AR 85260	N/A	02/24/2006	AZ	ASMBS
Scripps Memorial 9888 Genesee Avenue La Jolla, CA 90237	N/A	02/24/2006	CA	ASMBS
Scripps Mercy Hospital 4077 Fifth Avenue San Diego, CA 92103	N/A	02/24/2006	CA	ASMBS
Sentara Careplex Hospital 3000 Coliseum Drive Hampton, VA 23666	N/A	02/24/2006	VA	ASMBS
Sinai Hospital of Baltimore 2401 W. Belvedere Avenue Baltimore, MD 21215	N/A	02/24/2006	MD	Sinai Surgical Associates ASMBS
Sisters of Charity Hospital 2130 Main Street Buffalo, NY 14214	N/A	02/24/2006	NY	ASMBS
Sioux Valley Hospital USD Medical Center 1305 W. 18th Street Sioux Falls, SD 57105	N/A	02/24/2006	SD	ASMBS
Sound Shore Medical Center of Westchester 16 Guion Place New Rochelle, NY 10801	N/A	02/24/2006	NY	ASMBS

South Nassau Communities Hospital 1 Healthy Way Oceanside, NY 11572	N/A	02/24/2006	NY	ASMBS
Southwest Healthcare System 36485 Inland Valley Drive Wildomar, CA 92595	N/A	02/24/2006	CA	ASMBS
Southwest Medical Center 2810 Ambassador Caffery Parkway Lafayette, LA 70506	N/A	02/24/2006	LA	ASMBS
Spectrum Health Blodgett Campus 1840 Wealthy Street, SE Grand Rapids, MI 49506	N/A	02/24/2006	MI	MMPC Center for Health Excellence ASMBS
SSM DePaul Health Center 12303 DePaul Avenue Bridgeton, MO 63044	N/A	02/24/2006	MO	ASMBS
St. Joseph's Area Health Services 600 Pleasant Avenue Park Rapids, MN 56470	N/A	02/24/2006	MN	ASMBS
St. Vincent Charity Hospital 2322 E. 22nd Street #220 Cleveland, OH 44115	N/A	02/24/2006	OH	ASMBS
Staten Island University Hospital 475 Seaview Avenue Staten Island, NY 10305	N/A	02/24/2006	NY	ASMBS
Theda Clark Medical Center 200 Theda Clark Medical Plaza Suite 410 Neenah, WI 54956	000071445	02/24/2006	WI	ACS

The Ohio State University Hospital 410 W. 10th Avenue Columbus, OH 43210	N/A	02/24/2006	OH	ASMBS
The Regional Medical Center at Memphis 877 Jefferson Avenue Memphis, TN 38103	N/A	02/24/2006	TN	ASMBS
Tri-City Regional Medical Center 21530 Pioneer Boulevard Hawaiian Gardens, CA 90716	N/A	02/24/2006	CA	ASMBS
United Hospital 333 North Smith Avenue Saint Paul, MN 55102	N/A	02/24/2006	MN	ASMBS
United Regional Health Care System 1600 19th Street Wichita Falls, TX 76301	N/A	02/24/2006	TX	ASMBS
Unity Hospital 550 Osborne Road, NE Fridley, MN 55432	N/A	02/24/2006	MN	ASMBS
University of Chicago Hospitals 5841 S. Maryland Avenue Chicago, IL 60637	N/A	02/24/2006	IL	University of Chicago Department of Surgery ASMBS
University of Minnesota Medical Center, Fairview 2450 Riverside Avenue Minneapolis, MN 55454	24-0080	02/24/2006	MN	ASMBS
UPMC St Margaret 815 Freeport Road Pittsburgh, PA 15215	N/A	02/24/2006	PA	ASMBS
UPMC Horizon 110 North Main Street Greenville, PA 16125	N/A	02/24/2006	PA	ASMBS

Virginia Commonwealth University Medical Center Richmond, VA 23284	N/A	02/24/2006	VA	ASMBS
Vanderbilt University Medical Center 1211 22nd Avenue S. Nashville, TN 37232	N/A	02/24/2006	TN	ASMBS
Weight Loss Surgery Program at Baylor 9101 N. Central Expressway Suite 370 Dallas, TX 75231	N/A	02/24/2006	TX	ASMBS
Wellstar Health Systems 677 Church Street, NE Marietta, GA 30060	N/A	02/24/2006	GA	ASMBS
White Plains Hospital Center 190 E. Post Road White Plains, NY 10601	N/A	02/24/2006	NY	ASMBS
York Hospital 1001 S. George Street York, PA 17403	N/A	02/24/2006	PA	ASMBS
Norman Regional Hospital 901 North Porter, Box 1308 Norman, OK 73070	370008	03/22/2006	OK	ASMBS
St. Luke's Medical Center 1800 E. Van Buren Suite 307B Phoenix, AZ 85006	030037	03/22/2006	AZ	Abdominal Surgeons, Ltd. ASMBS
Silver Cross Hospital 1200 Maple Road Joliet, IL 60432	140213	03/22/2006	IL	Midwest Comprehensive Bariatrics ASMBS
Tampa General Hospital 2 Columbia Drive, F145 Tampa, FL 33601	100128	03/22/2006	FL	University of South Florida ASMBS

Spartanburg Regional Healthcare System 101 East Wood Street Spartanburg, SC 29303	420007	03/27/2006	SC	ASMBS
OSF Saint Francis Medical Center 530 NE Glen Oak Avenue Peoria, IL 61637	140067	04/05/2006	IL	ASMBS
Palmetto Health Baptist 1850 Laurel Street, Suite 1A Columbia, SC 29201	420086	04/05/2006	SC	ASMBS
Peconic Bay Medical Center 1300 Roanoke Avenue Riverhead, NY 11901	330107	04/06/2006	NY	ASMBS
Desert Springs Hospital 2075 East Flamingo Las Vegas, NV 89119	290022	04/07/2006	NV	ASMBS
Palmetto General Hospital 2001 West 68th Street Hialeah, FL 33016	100187	04/11/2006	FL	ASMBS
Hurley Medical Center One Hurley Plaza Flint, MI 48503-5993	230132	04/14/2006	MI	ACS
University of California, Davis 2315 Stockton Boulevard Sacramento, CA 95817	N/A	04/18/2006	CA	ASMBS
Russell County Medical Carroll and Tate Streets Lebanon, VA 24266	N/A	04/27/2006	VA	ASMBS
Western Pennsylvania Hospital 4800 Friendship Avenue Pittsburgh, PA 15224	028672	N/A	PA	ASMBS- 05/01/2006 ACS-10/16/2006
Banner Good Samaritan Bariatric Center 1300 North 12th Street Suite 610 Phoenix, AZ 85006	N/A	05/04/2006	AZ	ASMBS

Bothwell Regional Health Center 601 East 14th Street Sedalia, MO 65301	N/A	05/17/2006	MO	ASMBS
Durham Regional Hospital 3643 N. Roxboro Road Durham, NC 27704	N/A	05/17/2006	NC	ASMBS
Fairview Southdale Hospital 6405 France Avenue Street Suite W320 Edina, MN 55435	N/A	05/17/2006	MN	ASMBS
Cleveland Clinic 9500 Euclid Avenue (A80) Cleveland, OH 44195	360180	N/A	OH	05/24/2006-ASMBS 12/01/2006-ACS
St. Agnes Healthcare 900 Caton Avenue Baltimore, MD 21229	210011	05/24/2006	MD	ASMBS
Sycamore Hospital 2150 Leiter Road Miamisburg, OH 45342	360239	05/24/2006	OH	ASMBS
Albany Medical Center 47 New Scotland Avenue Albany, NY 12208	330013	06/02/2006	NY	ACS
Georgetown Community Hospital 1140 Lexington Road Georgetown, KY 40324	180101	06/07/2006	KY	ASMBS
Fletcher Allen Health Care 111 Colchester Avenue Burlington, VT 05401	N/A	06/09/2006	VT	Hospital: 470003 Group Provider: VN0997 ACS
New York-Presbyterian Hospital/Columbia University Medical Center 622 W. 168th Street New York, NY 10032	330101	06/14/2006	NY	ACS

Providence Memorial Hospital 2001 North Oregon Street El Paso, TX 79902	450668	06/15/2006	TX	ASMBS
UT Southwestern University Hospitals-Zale Lipshy 5909 Harry Hines Boulevard Dallas, TX 75390	450766	06/19/2006	TX	ASMBS
Cedars-Sinai Medical Center 8700 Beverly Boulevard Los Angeles, CA 90048	N/A	06/20/2006	CA	Thalians-2W ACS
Community Medical Center-Clovis 2755 Herndon Avenue Clovis, CA 93611	050492	N/A	CA	ACS-06/26/2006 ASMBS-12/07/2006
Oregon Health & Science University 3181 SW Sam Jackson Park Road L223A Portland, OR 97239	See other information	06/27/2006	OR	OHSU Medical Group-107708 OHSU Hospital-380009 ACS
Hospital of the University of Pennsylvania 3400 Spruce Street, 4 Silverstein Philadelphia, PA 19104	N/A	07/06/2006	PA	ASMBS
Swedish Medical Center 501 East Hampden Avenue Englewood, CO 80113	060034	07/06/2006	CO	ASMBS
Blount Memorial Hospital 907 East Lamar Alexander Parkway Maryville, TN 37801	440011	07/11/2006	TN	ASMBS
University of Virginia Health System PO Box 800809 Charlottesville, VA 22908-0809	490009	07/12/2006	VA	ACS

Sewickley Valley Hospital 720 Blackburn Road Sewickley, PA 15143	390037	07/13/2006	PA	ASMBS
The Christ Hospital 2139 Auburn Avenue Cincinnati, OH 45219	360163	07/17/2006	OH	ASMBS
Cabell Huntington Hospital 1340 Hal Greer Boulevard Huntington, WV 25701	510055	07/19/2006	WV	ASMBS
Mount Sinai Hospital One Gustave L. Levy Place 1190 5th Avenue New York, NY 10029	330024	07/25/2006	NY	ASMBS
UMass Memorial Medical Center-Memorial Campus 119 Belmont Street Worcester, MA, 01605	A22819	07/27/2006	MA	ACS
Henry Ford Hospital 2799 West Grand Boulevard Detroit, MI 48202	N/A	07/31/2006	MI	ASMMBS
Vista Surgical Hospital 9094 Perkins Road Suite B Baton Rouge, LA 70810	230053	07/31/2006	LA	ASMBS
Town & Country Hospital 6001 Webb Road Tampa, FL 33615	100255	08/02/2006	FL	ASMBS
New York-Presbyterian Hospital/Weill Cornell Medical Center 630 West 168th Street New York, NY 10032	330101	08/04/2006	NY	ACS

Centinela Freeman Regional Medical Center 4650 Lincoln Boulevard Marin del Rey, CA 90292	050741	08/07/2006	CA	ASMBS
NYU Medical Center 560 First Avenue New York, NY 10016	330214	08/08/2006	NY	ASMBS
Regional West Medical Center 4021 Avenue B Scottsbluff, NE 69361	280061	08/08/2006	NE	ASMBS
Mercy Medical Center 1000 North Village Avenue Rockville Centre, NY 11570	N/A	08/10/2006	NY	ASMBS
Brigham and Women's Hospital 75 Francis Street Boston, MA 02115-6195	M20830	08/14/2006	MA	ACS
St. Catherine of Sienna Medical Center 48 Route 25A Smithtown, NY 11787	316495	08/28/2006	NY	ASMBS
Highland Hospital 1000 South Avenue Rochester, NY 14620	330164	08/30/2006	NY	ACS
Inova Fair Oaks Hospital 3600 Joseph Siewick Drive Fairfax, VA 22033	490101	08/31/2006	VA	ASMBS
Our Lady of Lourdes Medical Center 1600 Haddon Avenue Camden, NJ 08104	613039	08/31/2006	NJ	ASMBS

FirstHealth Moore Regional Hospital 155 Memorial Drive Pinehurst, NC 27374	340115	09/01/2006	NC	ASMBS
Hamot Medical Center 201 State Street Erie, PA 16550	390063	09/01/2006	PA	ASMBS
St. Alexius Hospital - NewStart 3933 South Broadway Street St. Louis, MO 63118	260210	09/01/2006	MO	ASMBS
St. Catherine of Siena Medical Center 50 Route 25A Smithtown, NY 11787	316495	09/01/2006	NY	ASMBS
Barnes Jewish Hospital One Barnes-Jewish Hospital Plaza St. Louis, MO 63110	260032	09/06/2006	MO	ASMBS
Baptist Memorial Hospital Memphis 6025 Walnut Grove Road Memphis, TN 38120	440048	09/07/2006	TN	ASMBS
Norwalk Hospital 24 Stevens Street Norwalk, CT 06856	070034	09/07/2006	CT	ASMBS
North Shore University Hospital at Manhasset 300 Community Drive Manhasset, NY 11530	330106	09/08/2006	NY	ASMBS

St. Vincent's Medical Center 2800 Main Street Bridgeport, CT 06606	070028	09/08/2006	CT	Level 3-Department of Surgery ASMBS
Faxton-St. Luke's Healthcare 1656 Champlin Avenue Utica, NY 13503	330044	09/14/2006	NY	ASMBS
St. Joseph's Hospital 69 West Exchange St. Paul, MN 55102	N/A	09/14/2006	MN	ASMBS
Johns Hopkins Bayview Medical Center 4940 Eastern Avenue Baltimore, MD 21224	210029	09/15/2006	MD	ASMBS
University Hospitals of Cleveland 11100 Euclid Avenue Cleveland, OH 44106	N/A	09/15/2006	OH	ASMBS
Yale-New Haven Hospital 20 York Street New Haven, CT 06510	070022	09/20/2006	CT	ASMBS
Avera McKennan Hospital 800 East 21st Street, Box 5045 Sioux Falls, SD 57117-5045	430016	09/25/2006	SD	ASMBS
Memorial Hospital Jacksonville 3625 University Boulevard South Jacksonville, FL 32216	100179	09/26/2006	FL	ASMBS
Fountain Valley Regional Hospital 17100 Euclid Street Fountain Valley, CA 92708	050570	09/27/2006	CA	ASMBS
Sentara Norfolk General Hospital 600 Gresham Drive Norfolk, VA 23507	4900073	09/29/2006	VA	ACS

St. Mary's Medical Center 450 Stanyan Street San Francisco, CA 94117	050457	10/02/2006	CA	ASMBS
Trinity Medical Center 800 Montclair Road Birmingham, AL 35213	010104	10/03/2006	AL	ASMBS
MeritCare Health System 720 4th Street North Fargo, ND 58122	350011	10/11/2006	ND	ASMBS
St. Lukes's/Roosevelt 1090 Amsterdam Avenue New York, NY 10025	330046	10/11/2006	NY	10th Floor ACS
Benefis Healthcare 1101 26th Street South Great Falls, MT 59405	270012	10/13/2006	MT	ASMBS
Mason General Hospital 901 Mountain View Drive Shelton, WA 98584	501336	10/13/2006	WA	ASMBS
Norton Hospital 200 East Chestnut Louisville, KY 40202	180088	10/16/2006	KY	ASMBS
Port Huron Hospital 1221 Pine Grove Avenue Port Huron, MI 48060	230216	10/16/2006	MI	ASMBS
Harper University Hospital 3990 John R. Street Detroit, MI 48201	230104	10/17/2006	MI	ASMBS
St. Luke Hospital 7380 Turfway Road Florence, KY 41042	180045	10/18/2006	KY	ASMBS
Twelve Oaks Medical Center Hospital 4200 Twelve Oaks Drive Houston, TX 77027	N/A	10/18/2006	TX	ASMBS
Cleveland Clinic Florida 3100 Weston Road Weston, FL 33331-3602	100289	10/19/2006	FL	ACS

Grinnell Regional Medical Center 210 Fourth Avenue Grinnell, IA 50112	N/A	10/19/2006	IA	Provider Numbers: Hospital: 160147, Surgical Group: 03108 ACS
Conway Medical Services 300 Singleton Ridge Road Conway, SC 29528	420049	10/11/2006	SC	ASMBS
Alta Bates Medical Center 350 Hawthorne Avenue Oakland, CA 94609	050043	10/23/2006	CA	ASMBS
Massachusetts General Hospital 55 Fruit Street Boston, MA 02114-2696	220071	10/23/2006	MA	ACS
Mayo Clinic-Saint Mary's Hospital 200 First Street SW Rochester, MN 55905	N/A	10/23/2006	MN	SMH: 24-0010 Part B General Medical: C01384 ACS
Saint Francis Hospital 6465 South Yale Avenue, #900 Tulsa, OK 74136	372308	10/23/2006	OK	ACS
Newton-Wellesley Hospital 2014 Washington Street Newton, MA 02462	220101	10/26/2006	MA	ACS
Mobile Infirmary Medical Center 5 Mobile Infirmary Circle Mobile, AL 36007	010113	10/27/2006	AL	ASMBS
Maine Medical Center 22 Bramhall Street Portland, ME 04102	200009	11/06/2006	ME	ASMBS
Magee Womens Hospital of UPMC 3000 Halket Street Pittsburgh, PA 15213	390114	11/13/2006	PA	ASMBS

Saint Francis Hospital and Medical Center 114 Woodland Street Hartford, CT 06105	070002	11/15/2006	CT	ASMBS
South Jersey Healthcare-Regional Medical Center 1505 West Sherman Avenue Vineland, NJ 08360	310032	11/20/2006	NJ	ASMBS
Overlook Hospital 99 Beauvoir Avenue Summit, NJ 07902	310051	11/21/2006	NJ	Nursing Administration Office ASMBS
Cedars Medical Center 1400 Northwest 12th Avenue Miami, FL 33136	100009	11/23/2006	FL	ASMBS
Memorial Hermann Memorial City Hospital 921 Gessner Road Houston, TX 77024	450610	11/27/2006	TX	ASMBS
Tufts-New England Medical Center 750 Washington Street Boston, MA 02111	220116	11/27/2006	MA	ASMBS
Allegheny General Hospital 320 East North Avenue Pittsburgh, PA 15212	390050	11/30/2006	PA	Fifth Floor, South Tower ASMBS
Northwest Medical Center 2801 North State Road 7 Margate, FL 33063	100189	11/30/2006	FL	ASMBS
Potomac Hospital 2300 Opitz Boulevard Woodbridge, VA 22191	490113	11/30/2006	VA	ASMBS
Baptist Health Medical Center - Little Rock 9601 I-630, Exit 7 Little Rock, AR 72205	040114	12/01/2006	AR	ASMBS

University of Washington Medical Center 1959 NE Pacific Street PO Box 356151 Seattle, WA 98195-6151	1326002049	12/05/2006	WA	ACS
St. Luke's Regional Medical Center 333 North 1st Street Suite 120 Boise, ID 83702	130006	12/06/2006	ID	ASMBS
University of Alabama at Birmingham Hospital 1530 3rd Avenue South Kracke Building 404 Birmingham, AL 35294-0016	010033	12/07/2006	AL	ACS
Hackensack University Medical Center 30 Prospect Avenue Hackensack, NJ 07601	310001	12/08/2006	NJ	ACS
Hialeah Hospital 651 East 25th Street Hialeah, FL 33013	100053	12/13/2006	FL	ASMBS
Sts. Mary and Elizabeth Hospital 1850 Bluegrass Avenue Louisville, KY 40215	180040	12/15/2006	KY	Bariatric Office ASMBS
Bon Secours Surgical Weight Loss-Maryview Medical Center 3636 High Street Portsmouth, VA 23707	490017	12/18/2006	VA	ASMBS
Pomerado Hospital 15615 Pomerado Road Poway, CA 92064	050636	12/18/2006	CA	ASMBS
Boston Medical Center 88 E. Newton Street D507-Department of Surgery Boston, MA 02118	220031	12/19/2006	MA	ACS

Medcenter One, Inc. 300 North 7th Street Bismarck, ND 58501	350015	12/19/2006	ND	ASMBS
Meriter Hospital 202 South Park Street Madison, WI 53715	520089	12/19/2006	WI	ASMBS
University of Wisconsin Hospital & Clinics 600 Highland Avenue Madison, WI 53792	520098	12/19/2006	WI	ASMBS
Women and Children's Hospital 4200 Nelson Road Lake Charles, LA 70605	190201	12/19/2006	LA	ASMBS
Mount Carmel West Hospital 793 West State Street Columbus, OH 43222	360035	12/20/2006	OH	ASMBS
Southcoast Hospitals Group-Tobey Hospital 43 High Street Wareham, MA 02571	220074	12/21/2006	MA	ASMBS
Carilion Roanoke Memorial Hospital 1906 Belleview Avenue Roanoke, VA 24014	N/A	12/26/2006	VA	ASMBS
Mercy General Health Partners 1500 Sherman Boulevard Muskegon, MI 49444	230004	12/26/2006	MI	ASMBS
Mountainside Hospital 1 Bay Avenue Montclair, NJ 07042	310054	12/26/2006	NJ	ASMBS
Park Plaza Hospital 1313 Hermann Drive Houston, TX 77004	450659	01/09/2007	TX	ASMBS

Renaissance Hospital Houston 2807 Little York Houston, TX 77093	450795	01/12/2007	TX	ASMBS
Penn State Milton S. Hershey Medical Center 500 University Drive Hershey, PA 17033	390256	01/18/2007	PA	ASMBS
Shawnee Mission Medical Center 9100 West 74th Street Shawnee Mission, KS 66204	170104	01/24/2007	KS	ASMBS
Morristown Memorial Hospital 100 Madison Avenue Morristown, NJ 07962	31-0015	01/25/2007	NJ	ACS
Alvarado Hospital 6655 Alvarado Road San Diego, CA 92120	050583	01/26/2007	CA	Alvarado Surgical Weight-Loss Program ASMBS
St. Francis Hospital 7th and Clayton Streets Wilmington, DE 19805	080003	01/29/2007	DE	ASMBS
Sacred Heart Medical Center 101 West 8th Avenue Spokane, WA 99220	500054	02/05/2007	WA	ASMBS
Ochsner Clinic Foundation 1514 Jefferson Highway New Orleans, LA 70121	190036	02/06/2007	LA	ASMBS
Northwest Specialty Hospital 1593 East Polston Avenue Post Falls, ID 83854	130066	02/07/2007	ID	ASMBS
Sacred Heart Hospital 421 Chew Street Allentown, PA 18102	390197	02/07/2007	PA	ASMBS
Rio Grande Regional Hospital 101 East Ridge Road McAllen, TX 78503	450711	02/12/2007	TX	ASMBS

Gundersen Lutheran Medical Center 1900 South Avenue La Crosse, WI 54601	520087	02/13/2007	WI	ASMBS
Kettering Medical Center 3535 Southern Boulevard Kettering, OH 45429	360079	02/16/2007	OH	ASMBS
Beth Israel Deaconess Medical Center 330 Brookline Avenue Boston, MA 02215	N/A	02/17/2006	MA	ACS
Shady Grove Adventist Hospital 9901 Medical Center Drive Rockville, MD 20850	210057	02/19/2007	MD	ASMBS
Pitt County Memorial Hospital 2100 Stantonsburg Road Greenville, NC 27835	340040	02/20/2007	NC	ASMBS
St. Cloud Hospital 1406 Sixth Avenue, North St. Cloud, MN 56303	240036	02/23/2007	MN	ASMBS
Virginia Mason Medical Center 1100 Ninth Avenue Seattle, WA 98101	500005	03/01/2007	WA	ASMBS
Southeast Georgia Health System 2415 Parkwood Drive Brunswick, GA 31520	110025	03/06/2007	GA	ASMBS
Baystate Medical Center 759 Chestnut Street Springfield, MA 01199	220077	03/13/2007	MA	ACS
PinnacleHealth Community Campus 4300 Londonderry Road c/o PO Box 8700 Harrisburg, PA 17109	390067	03/29/2007	PA	ASMBS

The Valley Hospital 223 North Van Dien Avenue Ridgewood, NJ 07450	310012	03/30/2007	NJ	ASMBS
Charleston Area Medical Center 800 Pennsylvania Avenue Charleston, WV 25302	510022	04/16/2007	WV	ASMBS
Presbyterian Hospital of Dallas 8200 Walnut Hill Lane Dallas, TX 75231	450462	04/16/2007	TX	ASMBS
Dekalb Medical Center 2701 North Decatur Road Decatur, GA 30033	110076	04/26/2007	GA	ASMBS
St. Francis Health Center 1700 SW 7th Street Topeka, KS 66606	170016	04/26/2007	KS	ASMBS
St. Mark's Hospital 1200 East 3900 South Salt Lake City, UT 84124	47007	04/26/2007	UT	ASMBS
Faulkner Hospital 1153 Centre Street Boston, MA 02130	220119	04/27/2007	MA	ACS
George Washington University Hospital 9000 23rd Street NW Washington, DC 20037	090001	08/14/2006	DC	ASMBS

William Beaumont Hospital – Royal Oak 3601 West Thirteen Mile Road Royal Oak, MI 48073-6769	230130	04/20/2007	MI	ACS
University Medical Center at Princeton 253 Witherspoon Street Princeton, NJ 08542	N/A	02/24/2006	NJ	ASMBS
Del Sol Medical Center 10201 Gateway West Suite 130 El Paso, TX 79925	45-0646	05/03/2007	TX	ACS
Winchester Hospital 41 Highland Avenue Winchester, MA 01890	220105	05/31/2007	MA	ASMBS
Lawrence Memorial Hospital – Hallmark Health System 170 Governors Avenue Medford, MA 02155	220070	05/31/2007	MA	ASMBS
The Methodist Hospital 6565 Fannin, NB1-001 Houston, TX 77030	450358	03/22/2007	TX	ACS
ValleyCare Health System 1111 East Stanley Boulevard Livermore, CA 94550	050283	06/07/2007	CA	ASMBS
The Presbyterian Hospital 200 Hawthorne Lane Charlotte, NC 28204	340053	06/06/2007	NC	ASMBS
Nix Hospital 414 Navarro Street San Antonio, TX 78205	450130	06/08/2007	TX	ASMBS

Huntsville Hospital 101 Sivley Road Huntsville, AL 35801	010039	05/11/2007	AL	ASMBS
The Jewish Hospital 4777 Galbraith Road Cincinnati, OH 45236	360016	06/07/2007	OH	ASMBS
UCI Medical Center 101 The City Drive South Orange, CA 92868	050348	05/25/2007	CA	ACS
Kaiser Permanente Medical Center Richmond 901 Nevin Avenue Richmond, CA 94801	050075	05/24/2007	CA	ACS
Green Hospital 12395 El Camino Real San Diego, CA 92130	050424	06/21/2007	CA	ASMBS
Sutter Roseville Medical Center One Medical Plaza Roseville, CA 95661	050309	06/22/2007	CA	ASMBS
Munroe Regional Medical Center 1500 Southwest 1st Avenue Ocala, FL 34471	100062	06/05/2007	FL	ASMBS
Enloe Medical Center 251 Cohasset Road Chico, CA 95926	050039	06/11/2007	CA	ASMBS
St. Francis Hospital & Health Centers 1600 Albany Street Beech Grove, IN 46107	150033	06/15/2007	IN	ASMBS
Southern Surgical Hospital 1700 West Lindberg Drive Slidell, LA 70458	190270	06/21/2007	LA	ASMBS

Creighton University Medical Center 601 North 30th Street Omaha, NE 68131	280030	06/20/2007	NE	ASMBS
Peninsula Regional Medical Center 100 East Carroll Street Salisbury, MD 21801	210019	06/20/2007	MD	ASMBS
Wadley Regional Medical Center 1000 Pine Street Texarkana, TX 75501	450200	06/08/2007	TX	ASMBS
Vista Medical Center Hospital 4301 Vista Road Pasadena, TX 77504	450831	06/22/2007	TX	ASMBS
St. David's Medical Center 919 East 32nd Street Austin, TX 78705	450531	06/22/2007	TX	ASMBS
Sanford USD Medical Center 1305 West 18th Street Sioux Falls, SD 57117	430027	01/17/2006	SD	ASMBS
Weight Loss Surgery Program at Baylor 3600 Gaston Avenue Suite 360 Wadley Tower Dallas, TX 75246	N/A	06/20/2007	TX	ASMBS
Shelby Baptist Medical Center 1000 First Street N. Alabaster, AL 35007	010016	05/18/2007	AL	ACS
Lehigh Valley Hospital and Health Network Cedar Crest & I-78 PO Box 689 Allentown, PA 18105-1556	390133	05/29/2007	PA	ACS
West Hills Hospital 7300 Medical Center Drive West Hills, CA 91307	050481	06/27/2007	CA	ASMBS

Adirondack Medical Center 2233 State Route 86 Saranack Lake, NY 12983	330079	06/26/2007	NY	ASMBS
Middletown Regional Hospital 105 McKnight Drive Middletown, OH 45044	360076	06/25/2007	OH	ASMBS
Kaleida Health, Buffalo General 100 High Street Buffalo, NY 14203	300005	06/25/2007	NY	ASMBS
Miami Valley Hospital One Wyoming Street Dayton, OH 45409	N/A	06/25/2007	OH	ASMBS
Minimally Invasive Surgery Hospital 11217 Lakeview Avenue Lenexa, KS 66219	N/A	06/25/2007	KS	ASMBS
Saint Agnes Medical Center 1303 E. Herndon Avenue Fresno, CA 93720	05-0093	07/24/2007	CA	ASMBS
Sartori Memorial Hospital 515 College Street Cedar Falls, IA 50613	160040	07/17/2007	IA	ASMBS
Maimonides Medical Center 948 48th Street, 2nd floor Brooklyn, NY 11219	33-0194	07/10/2007	NY	ASMBS
Westchester Medical Center 95 Grasslands Road Valhalla, NY 10595	330234	07/17/2007	NY	ASMBS
Deaconess Hospital 311 Straight Street Cincinnati, OH 45219	36-0038	07/17/2007	OH	ASMBS

Northern Ohio Bariatric Center at Parma Hospital 6305 Powers Boulevard Parma, OH 44129	360041	07/10/2007	OH	ASMBS
Einstein at Elkins Park 60 E. Township Line Road Elkins Park, PA 19027	390142	07/10/2007	PA	ASMBS
Lahey Clinic Medical Center 41 Mall Road Burlington, MA 01805	220171	06/22/2007	MA	ACS
St. Francis Hospital 34515 Ninth Ave South Federal Way, WA 98003	500141	07/26/2007	WA	ACS
California Foundation for Health 1401 Garces Highway Delano, CA 93215	050608	07/10/2007	CA	d.b.a. Delano Regional Medical Center; ASMBS
Northeast Alabama Regional Medical Center 400 East 10th Street Anniston, AL 36207	010078	07/30/2007	AL	ASMBS
Trinity Medical Center 4343 N. Josey Lane Carrollton, TX 75010	45-0730	07/30/2007	TX	ASMBS
Gratiot Medical Center 300 E. Warwick Drive Alma, MI 48801	23-0030	07/30/2007	MI	ASMBS
Cuyuna Regional Medical Center 320 East Main Street Crosby, MN 56441	241353	08/20/2007	MN	ASMBS
Valley Medical Center 400 South 43rd Street Renton, WA 98055	500088	07/30/2007	WA	ASMBS

Renaissance Hospital Dallas 427 W. 20th Street Suite 300 Houston, TX 77008	670002	08/08/2007	TX	ASMBS
UPMC Presbyterian Shadyside 5230 Centre Avenue Pittsburgh, PA 15232	39-0114	08/20/2007	PA	ASMBS
Clarian North Medical Center 6625 Network Way Suite 100 Indianapolis, IN 46202	15-0161	08/20/2007	IN	ASMBS
Genesis Medical Center 1227 East Rusholme Street Davenport, IA 52803	160033	08/08/2007	IA	ASMBS
University General Hospital 7501 Fannin Street Houston, TX 77054	670019	08/08/2007	TX	ASMBS
Ellis Hospital 1101 Nott Street Schenectaday, NY 12308	330153	06/19/2007	NY	ASMBS
University of Texas Medical Branch 301 University Boulevard Galveston, TX 77555-1168	450018	08/16/2007	TX	ACS
UPMC Presbyterian Shadyside 5230 Centre Avenue Pittsburgh, PA 15232	39-0114	08/20/2007	PA	ABMS
Christiana Care Health Services 4755 Ogletown – Stanton Road Newark, DE 19718	080001	08/29/2007	DE	ASMBS
Stanford Hospital and Clinics 300 Pasteur Drive Stanford, CA 94305	050441	09/13/2007	CA	ACS

Summa Health Systems Hospital 95 Arch Street Suite 240 Akron, OH 44304	360020	09/21/2007	OH	ASMBS
Memorial Regional Hospital 3500 Johnson Street Hollywood, FL 33021	100038	09/11/2007	FL	ASMBS
Temple University Hospital 3401 North Broad Street Philadelphia, PA 19140	390027	09/21/2007	PA	ASMBS
Good Samaritan Hospital 2425 Samaritan Drive San Jose, CA 95124	50380	09/21/2007	CA	ASMBS
Johnson City Medical Center 400 North State of Franklin Road Johnson City, TN 37604	HSP440063	09/27/2007	TN	ASMBS
Providence Saint Joseph Medical Center 201 South Buena Vista Street Suite 425 Burbank, CA 91505	50235	N/A	CA	ASMBS – 09/17/2007; ACS – 09/05/2007
Baptist Bariatric Center of Excellence 1000 West Moreno Street Pensacola, FL 32501	10-0093	09/27/2007	FL	ASMBS
Hillcrest Hospital 2104 Woodruff Road Greenville, SC 29607	43-0037	10/10/2007	SC	ASMBS
Fairway Medical 67252 Industry Lane Covington, LA 70433	190267	10/10/2007	LA	ASMBS
John T. Mather Memorial Hospital 75 North Country Road Port Jefferson, NY 11777	JTM 33-0185	10/10/2007	NY	ASMBS

Lenox Hill Hospital 110 East 59th Street, Suite 8A New York, NY 10022	10003F8	10/10/2007	NY	ASMBS
Easton Hospital 250 South 21st Street Easton, PA 18042	390162	10/10/2007	PA	ASMBS
Medical City Dallas Hospital 7777 Forest Lane, Suite 240A Dallas, TX 75230	000340	10/10/2007	TX	ASMBS
St Vincent's East 50 Medical Park East Drive Birmingham, AL 35235	010011	10/10/2007	AL	ASMBS
Northside Hospital 1000 Johnson Ferry Road Atlanta, GA 30342	11-0161	10/10/2007	GA	ASMBS
Missouri Bariatric Services 1000 W. Nifong Boulevard, Building 2, Suite 210 Columbia, MO 65203	000011108	10/10/2007	MO	ASMBS
Presbyterian Hospital of Plano 6200 West Parker Road Plano, TX 75093	45-0771	10/10/2007	TX	ASMBS
Norton Suburban Hospital 315 East Broadway Louisville, KY 40202	180088	10/10/2007	KY	ASMBS
Sky Ridge Medical Center 10101 RidgeGate Parkway Lone Tree, CO 80124	060112	10/30/2007	CO	ASMBS
St. Mary Medical Center 1050 Linden Avenue Long Beach, CA 90813	050191	10/30/2007	CA	ASMBS

Scott and White Hospital 2401 S. 31st Street Temple, TX 76508	450054	10/24/2007	TX	ACS
The Methodist Hospitals, Inc. 303 East 89th Avenue Merrillville, IN 46410	150132	10/30/2007	IN	ASMBS
Parkview Community Hospital 3865 Jackson Street Riverside, CA 92503	050102	10/30/2007	CA	ASMBS
Evergreen Hospital 12040 NE 128th Street Kirkland, WA 98034	500124	10/30/2007	WA	ASMBS
University of Maryland Medical Center 22 South Greene Street Baltimore, MD 21201-1595	21002	11/05/2007	MD	ACS
Montefiore Medical Center 111 East 210th Street Bronx, NY 10467	330059	11/07/2007	NY	Group #: 330059, Dr. Karen Gibbs #: 140341, Dr. Pratibha Vemulapalli #: 3097H1; ACS
Emory Crawford Long Hospital 1364 Clifton Road, NE Atlanta, GA 30322	110078	11/13/2007	GA	ACS
El Camino Hospital 2500 Grant Road Mountain View, CA 94039	050308	11/19/2007	CA	ASMBS
Northeast Baptist Hospital 8811 Village Drive San Antonio, TX 78217	450058	11/19/2007	TX	ASMBS

University of Iowa Hospitals and Clinics 4624 JCP Bariatric Surgery Iowa City, IA 52242	160058	11/19/2007	IA	ASMBS
El Camino Hospital 2500 Grant Road Mountain View, CA 94039	050308	11/19/2007	CA	ASMBS
Aspirus Wausau Hospital 333 Pineridge Boulevard Wausau, WI 54401	52-0030	11/28/2007	WI	ASMBS
Eastern Idaho Regional Medical Center 2860 Channing Way Suite 102 Idaho Falls, ID 83404	13-0018	12/10/2007	ID	ASMBS
Mount Sinai Medical Center 4701 North Meridian Avenue Miami Beach, FL 33140	10-0034	12/11/2007	FL	ASMBS
North Florida Regional Medical Center 6400 Newberry Road Suite 106 Gainesville, FL 32605	21536	12/27/2007	FL	ASMBS
Baylor Regional Medical Center at Plano 470 Alliance Boulevard Plano, TX 75093	45-0890	01/04/2008	TX	ASMBS
Memorial Medical Center 1800 Coffee Road Suite 30 Modesto, CA 95350	050557	01/04/2008	CA	ASMBS
Pennsylvania Hospital 800 Spruce Street 2 Cathcart Philadelphia, PA 19107	39-0226	01/08/2008	PA	ASMBS

Houston Northwest Medical Center 710 FM 1960 Road West Houston, TX 77090	450638	01/08/2008	TX	ASMBS
St. Bernadine Medical Center 2101 North Waterman Avenue San Bernadino, CA 92404	05-0129	01/04/2008	CA	ASMBS
UCLA Medical Center 10833 Le Conte Avenue CHS 72-236 Los Angeles, CA 90095	050262	01/08/2008	CA	ASMBS
Lourdes Medical Center Burlington County 218-A Sunset Road Willingboro, NJ 08046	310061	01/30/2008	NJ	ASMBS
Sacred Heart Medical Center 1200 Hilyard Street Suite S-570 Eugene, OR 97401	380033	01/23/2008	OR	ASMBS
Salt Lake Regional Medical Center 1050 East South Temple Salt Lake City, UT 84102	460003	02/11/2008	UT	ASMBS
Kaiser Permanente-South San Francisco 1200 El Camino Real South San Francisco, CA 94080	050070	01/30/2008	CA	ASMBS
Chilton Memorial Hospital 97 West Parkway Pompton Plains, NJ 07444	310017	02/12/2008	NJ	ASMBS
Mary Imogene Bassett Hospital One Atwell Road Cooperstown, NY 13326	330136	02/12/2008	NY	ASMBS
Sharp Memorial Hospital 7901 Frost Street -- 5 South /ACC San Diego, CA 92123	0150100	02/11/2008	CA	ASMBS

Doctors Hospital at White Rock Lake 9440 Poppy Drive Dallas, TX 75218	450678	01/30/2008	TX	ASMBS
Rhode Island Hospital 2 Dudley Street Suite 470 Providence, RI 02905	410007	02/25/2008	RI	ASMBS
Munson Medical Center 1105 Sixth Street Traverse City, MI 49684	23-0097	02/19/2008	MI	ASMBS
DayOne Health at 900 N. Michigan Surgical Center 409 West Huron Suite 300 Chicago, IL 60613	538810	02/19/2008	IL	ASMBS
USC University Hospital 1500 San Pablo Los Angeles, CA 90033	05-0696	01/30/2008	CA	ASMBS
Lexington Medical Center 2720 Sunset Boulevard West Columbia, SC 29169-4810	See other information	01/14/2008	SC	ACS; NPI: Hospital Services 1356366314; Professional Services 1144248097
Saint Clare's Hospital 400 West Blackwell Street Dover, NJ 07801	310050	03/17/2008	NJ	ASMBS
Hartford Hospital 85 Seymour Street, Suite 415 Hartford, CT 06106	07-0025	03/25/2008	CT	ASMBS
Singing River Hospital 2809 Denny Avenue Pascagoula, MS 39581	250040	03/17/2008	MS	ASMBS

St. John's Regional Health Center 1235 East Cherokee Street Springfield, MO 65804	260065	03/17/2008	MO	ASMBS
Willis Knighton Health System 2551 Greenwood Road Suite 340 Shreveport, LA 71103	190111	03/17/2008	LA	ASMBS
Cottage Health System PO Box 689 Pueblo at Bath Street Santa Barbara, CA 93102-0689	030596	02/25/2008	CA	ASMBS
Syosset Hospital 221 Jericho Turnpike Syosset, NY 11791	330106	02/19/2008	NY	ASMBS
The Hospital of Central Connecticut 1000 Grand Street New Britain, CT 06050	070035	03/11/2008	CT	ASMBS
Stringfellow Memorial Hospital 105 Windsor Lane Rainbow City, AL 35906	01-0038	03/11/2008	AL	ASMBS
Providence Alaska Medical Center 3200 Providence Drive Anchorage, AK 99519-6604	02-0001	03/17/2008	AK	ASMBS
The Reading Hospital and Medical Center 2603 Keiser Boulevard Wyomissing, PA 19610	390044	03/25/2008	PA	ASMBS
Good Samaritan Hospital 255 Lafayette Avenue Suffern, NY 10901	330158	03/25/2008	NY	ASMBS
San Joaquin Community Hospital 2819 H Street Bakersfield, CA 93301	04055	04/01/2008	CA	ASMBS

Lowell General Hospital 295 Varnum Avenue Lowell, MA 01854		02/22/2008	MA	Medicare: 220063; Medicaid Inpatientt #: 100228; Medicaid Outpatient #: 1201069; ACS
Memorial Health University Medical Center 4700 Waters Avenue Savannah, GA 31404	11-0036	04/08/2008	GA	ASMBS
Christiana Care Health Services 3506 Kennett Pike Wilmington, DE 19807	080001	04/18/2008	DE	ACS
Abington Memorial Hospital 1235 Old York Road, Suite G-28 Abington, PA 19001	390231	04/21/2008	PA	ASMBS
Gateway Medical Center 1771 Madison Street Clarksville, TN 37043	440035	04/21/2008	TN	ASMBS
Westchester Medical Center 95 Grasslands Road Valhalla, NY 10595	W94181	04/07/2008	NY	ACS
High Point Regional Health System 601 N. Elm Street High Point, NC 27261	34-0004	05/02/2008	NC	ACS
Desert Regional Medical Center 1150 North Indian Canyon Drive Palm Springs, CA 92262	05-0243	05/12/2008	CA	ASMBS
Southwest General Hospital 7400 Barlite Boulevard San Antonio, TX 78224	450697-A	05/22/2008	TX	ASMBS

Muhlenberg Regional Medical Center Park Avenue and Randolph Road Plainfield, NJ 07061	310063	06/02/2008	NJ	ASMBS
St. Mary's Medical Center 407 East 3rd Street Duluth, MN 55805	240002	06/09/2008	MN	ASMBS
St. Charles Medical Center - Bend 2500 NE Neff Road Bend, OR 97701	380047	06/30/2008	OR	ASMBS
Bay Area Hospital 1775 Thompson Road Coos Bay, OR 97420	380090	06/30/2008	OR	ASMBS
Saint Elizabeth Regional Medical Center 555 South 70th Street Lincoln, NE 68510	280020	07/21/2008	NE	ASMBS 6th Floor Surgical Unit
Holston Valley Medical Center 130 Ravine Street Kingsport, TN 37660	44-0017	07/29/2008	TN	ASMBS
Holy Cross Hospital 1500 Forest Glen Road Silver Spring, MD 20910	210004	07/29/2008	MD	ACS
North Carolina Baptist Hospital Medical Center Boulevard Winston Salem, NC 27157	340047	07/29/2008	NC	ASMBS
Flagler Hospital 400 Health Park Boulevard St. Augustine, FL 32086	100090	07/31/2008	FL	ASMBS
Torrance Memorial Medical Center 3330 Lomita Boulevard Torrance, CA 90505	05-0351	08/02/2008	CA	ASMBS

St. John Macomb-Oakland Hospital 27483 Dequindre Road Madison Heights, MI 48701	230195	08/07/2008	MI	ASMBS Suite 204
Nebraska Methodist Hospital 10060 Regency Circle Omaha, NE 68114	280040	08/07/2008	NE	ASMBS
Marquette General Hospital 580 West College Avenue Marquette, MI 49855	23-0054	08/07/2008	MI	ASMBS
Sacred Heart Hospital 5149 North 9th Avenue Suite G-32 Pensacola, FL 32504	100025	08/19/2008	FL	ASMBS
Central Mississippi Medical Center 1850 Chadwick Drive Jackson, MS 39204	250072	08/26/2008	MS	ASMBS
Vista Hospital of Dallas 2696 West Walnut Street Garland, TX 75042	450315	08/26/2008	TX	ASMBS
St. Alexius Medical Center 1555 Barrington Road Hoffman Estates, IL 60169	14-0290	08/26/2008	IL	ASMBS
Alexian Brothers Medical Center 800 Biesterfield Road Elk Grove Village, Illinois 60007	14-0290	08/26/2008	IL	ASMBS 6th Floor

Alegent Health Immanuel Medical Center 6828 North 72nd Street Suite 5500 Omaha, NE 68122	280081	08/29/2008	NE	ASMBS
MountainView Hospital 3100 North Tenya Way Las Vegas, NV 89128	290039	09/03/2008	NV	ASMBS
Southwest Washington Medical Center 400 NE Mother Joseph Place Vancouver, WA 98664	500050	09/08/2008	WA	ASMBS
JFK Medical Center 5301 South Congress Avenue Atlantis, FL 33462	100080	09/18/2008	FL	ASMBS
McLaren Regional Medical Center 401 South Ballenger Highway Flint, MI 48532	230141	09/24/2008	MI	ASMBS
Cheyenne Regional Medical Center 2301 House Avenue, Suite 500 Cheyenne, WY 82001	530014	09/24/2008	WY	ASMBS
St. Mary Mercy Hospital 14555 Levan Road, Suite 311 Livonia, MI 48154	12200126	09/25/2008	MI	ASMBS
Altru Health System 1000 South Columbia Road Grand Forks, ND 58206	350019	09/25/2008	ND	ASMBS
Lutheran Hospital of Indiana Bariatric Center 7836 West Jefferson, Suite 101 Ft. Wayne, IN 46804	150017	09/25/2008	IN	ASMBS
Seton Medical Center 1201 West 38th Street Austin, TX 78705	450056	09/25/2008	TX	ASMBS

St. Elizabeth and St. Joseph Surgical 452 Broadway Street Youngstown, OH 44504	36-0161	09/25/2008	OH	ASMBS
Henry Ford Macomb Hospital – Warren Campus 13355 East 10 Mile Road Warren, MI 48089	230204	10/07/2008	MI	ASMBS
Saint Alphonsus Regional Medical Center 1055 North Curtis Road Boise, ID 83706	130007	10/07/2008	ID	ASMBS
Riverside Methodist Hospital 3535 Olentangy River Road Columbus, OH 43214	36-0006	10/21/2008	OH	ASMBS
Lawrence Hospital Center 55 Palmer Avenue Bronxville, NY 10708	330061	11/05/2008	NY	ACS
Winthrop University Hospital 120 Mineola Boulevard Suite 320 Mineola, NY 11501	330167	11/10/2008	NY	ASMBS
St. John's Regional Medical Center 1700 North Rose Avenue #380 Oxnard, CA 93030	050082	12/02/2008	CA	ASMBS
Floyd Medical Center PO Box 233 Rome, GA 30162	110054	01/07/2009	GA	ASMBS
Hazleton General Hospital 700 East Broad Street Hazleton, PA 18201	390185	04/20/2009	PA	ASMBS
Memorial Hermann Texas Medical Center 6411 Fannin Street Houston, TX 77030	45-0068	01/29/2009	TX	ACS

Mercy Medical Center 1111 6th Avenue Des Moines, IA 50314-9906	160083	01/28/2009	IA	ASMBS
Northwest Medical Center 1980 W. Hospital Drive Suite 200 Tucson, AZ 85741	03-0085	04/06/2009	AZ	ASMBS
Plaza Medical Center of Fort Worth 900 8th Avenue PAT-Bariatrics Ft. Worth, TX 76104	450672	03/20/2009	TX	ASMBS
SUNY Upstate Medical University 750 E. Adams Street, University Hospital Syracuse, NY 13210	NPI #: 1578554630	03/27/2009	NY	ACS; General Acute Care Hospital Number: 330241
Winchester Medical Center Bariatric Program 1840 Amherst Street Winchester, VA 22601	490005	03/20/2009	VA	ASMBS
Vanderbilt University Medical Center 1215 21st Avenue South Nashville, TN 37232	1952356065	05/05/2009	TN	ACS
Mother Frances Regional Medical Center 910 East Houston Street Suite 550 Tyler, TX 75702	450102	05/07/2009	TX	ASMBS
Sparrow Health System 2900 Hannah Boulevard Suite B-107 East Lansing, MI 48823	230230	05/15/2009	MI	ASMBS
First Street Hospital 4801 Bissonnet Street Bellaire, TX 77401	67009	05/18/2009	TX	ASMBS

Good Samaritan Hospital Medical Center 1000 Montauk Highway West Islip, NY 11795	330286	05/18/2009	NY	ASMBS
St. Joseph Hospital 1100 West Stewart Drive Orange, CA 92868	050069	05/18/2009	CA	ASMBS
Borgess Medical Center 1521 Gull Road Kalamazoo, MI 49048	23-0117	05/28/2009	MI	ASMBS
UT Southwestern Medical Center 5909 Harry Hines Boulevard Dallas, TX 75235	45-0044	05/28/2009	TX	ACS
Brookdale University Hospital/ Medical Center 1 Brookdale Plaza New York, NY 11212	33-0233	06/05/2009	NY	ASMBS
Des Peres Hospital 2345 Dougherty Ferry Road St. Louis, MO 63122	75-269-5810	06/05/2009	MO	ASMBS
Surgical Weight Loss Program at Eastern Maine Medical Center 905 Union Street Suite 11 Bangor, ME 4401	1790789147	06/10/2009	ME	ACS
Baylor Medical Center at Frisco 5601 Warren Parkway Frisco, TX 75034	450853	06/22/2009	TX	ASMBS
Trinity Hospital of Augusta 1500 Johns Road Suite 3 Augusta, GA 30904	110039	06/29/2009	GA	ASMBS

The Nebraska Medical Center 988142 Nebraska Medical Center Omaha, NE 68198-8142	28-0013	06/29/2009	NE	ASMBS
Day Surgery at Renaissance DBA Doctors Hospital at Renaissance 5501 S. McColl Road Edinburg, TX 78539	450869	07/13/2009	TX	ASMBS
Gunderson Lutheran Medical 1900 South Avenue LaCrosse, WI 54601	1851343115	04/28/2009	WI	ACS
Princeton Baptist Medical Center 917 Tuscaloosa Avenue, SW Birmingham, AL 35211	1144312430	07/01/2009	AL	
Centegra Health System Memorial Medical Center 3701 Doty Road Woodstock, IL 60098	140176	08/14/2009	IL	ASMBS
Wesley Long Community Hospital 501 North Elam Avenue Greensboro, NC 27403-1199	1477591055	06/29/2009	NC	ACS
South Miami Hospital 3 East Tower Building, 6200 SW 73rd Street South Miami, FL 33143	100154	06/22/2009	FL	ASMBS
Castle Medical Center 640 Ulukahiki Street Kailua, HI 96734	120006	09/08/2009	HI	ASMBS
Advocate Good Samaritan Hospital 3815 Highland Avenue Downers Grove, IL 60515	140288	09/08/2009	IL	ASMBS

Sacred Heart Medical Center 3377 RiverBend Drive Springfield, OR 97477	380033	01/23/2008	OR	ASMBS
Holzer Weight Loss Solutions 100 Jackson Pike Gallipolis, OH 45631	3600542	09/30/2009	OH	ASMBS
Christus Schumpert Health System One St. Mary Place Shreveport, Louisiana 71101	190041	12/02/2005	LA	ASMBS
Day Surgery at Renaissance DBA Doctors Hospital at Renaissance 5501 S. McColl Road Edinburg, TX 78539	450869	07/13/2009	TX	ASMBS
Gunderson Lutheran Medical 1900 South Avenue LaCrosse, WI 54601	1851343115	04/28/2009	WI	ACS
Princeton Baptist Medical Center 917 Tuscaloosa Avenue, SW Birmingham, AL 35211	1144312430	07/01/2009	AL	
Centegra Health System Memorial Medical Center 3701 Doty Road Woodstock, IL 60098	140176	08/14/2009	IL	ASMBS
Wesley Long Community Hospital 501 North Elam Avenue Greensboro, NC 27403-1199	1477591055	06/29/2009	NC	ACS
South Miami Hospital 3 East Tower Building, 6200 SW 73 Street South Miami, FL 33143	100154	06/22/2009	FL	ASMBS
Castle Medical Center 640 Ulukahiki Street Kailua, HI 96734	120006	09/08/2009	HI	ASMBS

Advocate Good Samaritan Hospital 3815 Highland Avenue Downers Grove, IL 60515	140288	09/08/2009	IL	ASMBS
Sacred Heart Medical Center 3377 RiverBend Drive Springfield, OR 97477	380102	01/23/2008	OR	ASMBS
Holzer Weight Loss Solutions 100 Jackson Pike Gallipolis, OH 45631	3600542	09/30/2009	OH	ASMBS
Christus Schumpert Health System One St. Mary Place Shreveport, Louisiana 71101	190041	12/02/2005	LA	ASMBS
AnMed Health Medical Center 800 North Fant Street Anderson, SC 29621	420027	09/30/2009	SC	ASMBS
Sinai Hospital of Baltimore 2435 W. Belvedere Avenue Baltimore, MD 21215	1285672204	09/25/2009	MD	ACS
Maine Medical Center 10 Andover Road Portland, ME 04102-1954	6320255	09/28/2009	ME	ACS
Palmyra Medical Center 2000 Palmyra Road Albany, GA 31702-1908	110163	11/09/2009	GA	ASMBS
Fresno Heart and Surgical Hospital 15 East Audobon Drive Fresno, CA 93720	050732	09/30/2009	CA	ASMBS
Englewood Hospital and Medical Center 350 Engle Street Englewood, NJ 07631	310045	11/09/2009	NJ	ASMBS
Central Baptist Hospital 1740 Nicholasville Road Lexington, KY 40503	180103	11/17/2009	KY	ASMBS

Providence Health Center 405 Londonderry, Suite 312 Waco, TX 76712	450042	11/17/2009	TX	ASMBS
Foundation Surgical Hospital 9522 Huebner San Antonio, TX 78420	670054	11/25/2009	TX	ASMBS
Middle Tennessee Medical Center 400 North Highland Avenue Murfreesboro, TN 37129	44-0053	11/17/2009	TN	ASMBS
Iowa Methodist Medical Center 6000 University Avenue West Des Moines, IA 50266	160082	12/16/2009	IA	ASMBS
Parkway Medical Center 1854 Beltline Road SW Decatur, AL 35601	01-0054	12/18/2009	AL	ASMBS
Texas Health Presbyterian Hospital Denton 3000 I-35 North Denton, TX 76201	45-0743	12/16/2009	TX	ASMBS
Catholic Medical Center 100 McGregor Street Manchester, NH 03102	30-0034	12/15/2009	NY	ASMBS
Wood County Hospital 950 West Wooster Street Bowling Green, OH 43402	36-0029	12/18/2009	OH	ASMBS
West Jefferson Medical Center 1101 Medical Center Boulevard Marrero, LA 70072	190039	12/29/2009	LA	ASMBS
Exempla Saint Joseph Hospital 1835 Franklin Street Denver, CO 80218	06-0028	12/15/2009	CO	ASMBS

Addendum XVI—FDG-PET for Dementia and Neurodegenerative Diseases Clinical Trials

In a National Coverage Determination for fluorodeoxyglucose positron emission tomography (FDG-PET) for Dementia and Neurodegenerative Diseases (220.6.13) we indicated that an FDG-PET scan is considered reasonable and necessary in patients with mild cognitive impairment or early dementia only in the context of an approved clinical trial that contains patient safeguards and protections to ensure proper administration, use, and evaluation of the FDG-PET scan.

Facility name	Provider Number	Date approved	State	Name of Trial	Principal Investigator
UCLA Medical Center 10833 Le Conte Avenue Los Angeles, CA 90095	HW13029	06/07/2006	CA	Early and Long-Term Value of Imaging Brain Metabolism	Dr. Daniel Silverman
Santa Monica-UCLA Medical Center 1245 16th Street Suite 105 Santa Monica, CA 90404	W11817A	01/12/2007	CA	N/A	N/A
University of Buffalo 3435 Main Street Buffalo, NY 14214	14414A	03/12/2007	NY	Metabolic Cerebral Imaging in Incipient Dementia (MCI-ID)	Dr. Daniel Silverman
Center for Alzheimer's Care, Imaging and Research (University of Utah) 650 Komas Drive Suite 106-A Salt Lake City, UT 84108	460009	02/17/2009	UT	Metabolic Cerebral Imaging in Incipient Dementia (MCI-ID)	Norman Foster, M.D.

Medical University of South Carolina 169 Ashley Avenue PO Box 250322 Charleston, SC 29425	1073605879	02/17/2009	SC	N/A	Kenneth Spicer
Cedars-Sinai Medical Center 8700 Beverly Boulevard Nuc Suite 1239 Los Angeles, CA 90048	951644600	10/09/2009	CA	"Early and Long-term Value of Imaging Brain Metabolism"	Dr. Alan Waxman

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