ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 79 and 80

[EPA–HQ–OAR–2016–0041; FRL–9953–79–OAR]

RIN 2060–AS66

Renewables Enhancement and Growth Support Rule

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: In this action, the Environmental Protection Agency (EPA) is proposing to update both its renewable fuels and other fuels regulations to reflect changes in the marketplace and to promote the growing use of both ethanol fuels (conventional and advanced) and non-ethanol advanced and cellulosic biofuels. The EPA is proposing to make several changes to the Renewable Fuel Standard (RFS) program regulations that would align them with recent developments in the marketplace to increase production of cellulosic and other advanced biofuels. There are several companies that have developed renewable fuel production technologies that produce a ''biointermediate'' at one facility that is then processed into renewable fuel at another facility, and we are proposing regulatory changes to allow fuels produced through such methods to qualify under existing approved renewable fuel production pathways. This action also proposes to update our fuel regulations by defining fuel blends containing 16 to 83 volume percent ethanol as ethanol flex fuel (EFF) and to no longer treat fuel blends containing 16 to 50 volume percent ethanol as gasoline. The EPA is proposing environmentally protective fuel quality specifications for EFF that are consistent with those already in place for gasoline. In this action we are also proposing new pathways for cellulosic biofuel produced from short-rotation trees and for renewable diesel and biodiesel produced from non-cellulosic portions of separated food waste. We are also proposing to add new registration, recordkeeping, and reporting requirements for facilities using carbon capture and storage if we were to approve the use of this technology in future assessments of proposed pathways for producing qualifying renewable fuel. We are also seeking comment on how best to implement and/or revise the RFS regulations pertaining to the generation of RINs for renewable electricity used as transportation fuel. Finally, we are proposing a number of other regulatory changes, clarifications, and technical corrections to the RFS program and other fuels regulations.

DATES: *Comments.* Comments must be received on or before January 17, 2017. Under the Paperwork Reduction Act (PRA), comments on the information collection provisions are best assured of consideration if the Office of Management and Budget (OMB) receives a copy of your comments on or before December 16, 2016. *Hearings.* The EPA will hold a public hearing on this proposal. Details will be provided in a separate announcement.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2016–0041, at *http://www.regulations.gov*. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or withdrawn from *Regulations.gov*. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the Web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *http://www2.epa.gov/dockets/commenting-epa-dockets*.

FOR FURTHER INFORMATION CONTACT: Julia MacAllister, Assessment and Standards Division, Office of Transportation and Air Quality, Environmental Protection Agency, 2000 Traverwood Drive, Ann Arbor, MI 48105; telephone number: (734) 214–4131; email address: *macallister.julia@epa.gov*.

SUPPLEMENTARY INFORMATION:

Preamble Acronyms and Abbreviations. We use multiple acronyms and terms in this preamble. While this list may not be exhaustive, to ease the reading of this preamble and for reference purposes, the EPA defines the following terms and acronyms here:

BOB blendstock for oxygenate blending
CAA Clean Air Act
CBOB conventional blendstock for oxygenate blending
CCS carbon capture and storage
CDX Central Data Exchange
CFR Code of Federal Regulations
CG conventional gasoline
CHONS carbon, hydrogen, oxygen, nitrogen, and sulfur
CNG compressed natural gas
DFE denatured fuel ethanol
EFF ethanol flex fuel
EMTS EPA Moderated Transaction System
EXX gasoline-ethanol blends containing XX percent ethanol
F&FA Fuel and Fuel Additive
FFV Flexible fuel vehicle
GHG greenhouse gas
LNG liquid natural gas
PTD product transfer document
QAP quality assurance plan
RBOB reformulated blendstock for oxygenate blending
RFG reformulated gasoline
RFS Renewable Fuel Standard
RIN Renewable Identification Number
RVO Renewable Volume Obligation
RVP Reid vapor pressure
SRT short-rotation tree
VCSB voluntary consensus standard body
WPC wholesale purchaser consumer

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A red-line version of the regulatory language that incorporates the proposed changes in this action is available in the docket for this action (Docket ID No. EPA–HQ–OAR–2016–0041).

I. Executive Summary

A. Purpose of the Regulatory Action

The Environmental Protection Agency (EPA) is committed to taking steps to reduce emissions of greenhouse gases (GHGs). This commitment is based on several charges given to the EPA, such as the Climate Action Plan announced by President Obama in June 2013,[1] the Paris Agreement reached at the 2015 United Nations Climate Change Conference in December 2015,[2] and the Renewable Fuel Standard (RFS) program required under the Clean Air Act (CAA). Since more than 70 percent of the fossil oil used in the U.S.[3] and 28 percent of GHG emissions [4] come from the transportation sector, the EPA has developed a number of regulatory programs designed to reduce GHG emissions from vehicles and engines. These programs have targeted both the efficiency of vehicles and engines as well as their use of renewable fuels.

The fundamental objective of the RFS program under the CAA is to increase the use of renewable fuels in the U.S. transportation system every year through at least 2022. These fuels include corn starch ethanol, the predominant biofuel in use to date, but Congress envisioned the growth beyond 2015 to come from cellulosic and other advanced biofuels that are required to have lower GHG emissions on a lifecycle basis than conventional (non-advanced) biofuels.[5] Since the initial promulgation of the RFS regulations in 2007, domestic production and use of renewable fuel volumes in the U.S. has increased substantially. According to the Energy Information Administration (EIA), fuel ethanol production in the U.S. more than doubled in volume from approximately 6.5 billion gallons in 2007 to about 14.8 billion gallons in 2015.[6] Growth in biodiesel and renewable diesel production in the U.S. has increased more than two and a half times, from approximately 0.5 billion gallons in 2007 [7] to 1.43 billion gallons in 2015.[8] Currently, nearly all of the approximately 138 billion gallons of gasoline used for transportation purposes contains 10 percent ethanol (E10).

Nevertheless, real-world limitations, such as the slower than predicted development of the cellulosic biofuel industry, less growth in gasoline use than was expected when Congress enacted the RFS provisions in 2007, and the ''E10 blendwall,'' [9] have made the timeline for growth in renewable fuel use laid out by Congress difficult to achieve. These challenges remain, even as we recognize the success of the program over the past decade in boosting renewable fuel use and the recent significant signs of progress towards development of increasing volumes of advanced, low-emitting GHG fuels, including cellulosic biofuels.

In order to continue the progress made in promoting the use of renewable fuels in the transportation sector, we believe it is important to take steps to remove potential barriers to their production, distribution, and consumption where such actions make sense. To this end, we have identified a number of areas where adjustments to

[1] The White House, ''The President's Climate Action Plan,'' June 2013, *http://www.whitehouse.gov/share/climate-action-plan.*

[2] The White House, ''U.S. Leadership and the Historic Paris Agreement to Combat Climate Change,'' December 2015, *http://www.whitehouse.gov/the-press-office/2015/12/12/us-leadership-and-historic-paris-agreement-combat-climate-change.*

[3] The White House, ''Improving the Fuel Efficiency of American Trucks—Bolstering Energy Security, Cutting Carbon Pollution, Saving Money and Supporting Manufacturing Innovation,'' p. 2, February 2014, *http://www.whitehouse.gov/sites/default/files/docs/finaltrucksreport.pdf.*

[4] U.S. EPA, ''Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2012,'' EPA 430–R–14–003, April 2014, *http://www.epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2014-Main-Text.pdf.*

[5] Conventional biofuels are those that achieve less than a 50 percent reduction in GHG emissions.

[6] EIA, ''Monthly Energy Review,'' Table 10.3, April 2016, *http://www.eia.gov/totalenergy/data/monthly/pdf/sec10_7.pdf.*

[7] 2007 volume represents biodiesel only. EIA, ''Monthly Energy Review,'' Table 10.4, April 2016, *http://www.eia.gov/totalenergy/data/monthly/pdf/sec10_8.pdf.*

[8] 2014 volume represents biodiesel and renewable diesel production from EMTS.

[9] The ''E10 blendwall'' represents the volume of ethanol that can be consumed domestically if all gasoline contains 10 percent ethanol and there are no higher-level ethanol blends consumed such as E15 or E85.

the regulatory provisions may be warranted. Some of the proposed regulatory changes would support the increased use of higher-level ethanol blends such as E85, while others would promote increased production of cellulosic and other advanced biofuels.

We are also proposing a number of other changes to the RFS regulations and other fuel regulations to streamline them, provide clarifications, and make technical corrections.

B. Summary of the Major Provisions of the Regulatory Action

1. Biointermediates

Since the RFS2 program was finalized in 2010, we have been made increasingly aware of renewable fuel producers that would like to process fuel at more than one facility. In some cases, it may be preferable for economic or practical reasons for renewable biomass to be subjected to substantial pre-processing at one facility before being sent to a different facility where it is converted into renewable fuel. For example, renewable biomass may be converted into a proto-renewable fuel (such as a bio-oil) at one facility that requires some additional processing at a different facility before it can be used as transportation fuel. These production methodologies have the potential to lower the cost of using cellulosic and other feedstocks for the production of renewable fuels by reducing the storage and transportation costs associated with feedstock handling—especially for cellulosic biomass. Thus, we believe that such technologies hold considerable promise for the future growth in production of the cellulosic biofuels required under the RFS program. However, we did not envision significant fuel production operations occurring over multiple facilities in drafting the existing regulations, and regulatory changes are necessary to both generally allow such practices, and to provide the necessary registration, reporting, and recordkeeping requirements that will facilitate appropriate oversight by the EPA.

We believe that increasing use of these ''biointermediates'' will likely provide an important component of the growth in renewable fuel production in the future, particularly for advanced and cellulosic biofuels. We are proposing changes in the RFS regulations to clearly specify requirements that apply when renewable fuel is produced through sequential operations at more than one facility. These changes center around the production, transfer, and use of biointermediates and the creation of new regulatory requirements related to registration, recordkeeping, and reporting for facilities producing or using a biointermediate for renewable fuel production. The new requirements on the biointermediate producer would be similar to those already required for renewable fuel producers.

2. Ethanol Flex Fuel

In the Tier 3 Motor Vehicle Emission and Fuel Standards (''Tier 3'') final rule, the EPA finalized new standards for passenger vehicles, including flexible fuel vehicles (FFVs), and more stringent gasoline sulfur standards to enable those standards to be achieved.[10] In addition, the EPA finalized requirements for test fuels used in certifying FFVs. At the same time, the EPA deferred finalizing in-use fuel quality standards for higher-level ethanol blends used in FFVs.[11] As discussed in the Tier 3 proposal, the current regulations and requirements for E51–83 [12] (historically referred to as E85 [13]) are inadequate, unclear, and out of date given recent changes to market practices.[14] While there are no standards specified in our current regulations for E51–83, the historically approved practice of blending E51–83 from just denatured fuel ethanol (DFE) and certified gasoline and gasoline blendstocks for oxygenate blending (BOBs) virtually ensured the resulting blend met the gasoline fuel specifications. However, other less-expensive blendstocks such as natural gasoline are currently available in the marketplace for which this is not necessarily true. Allowing the use of natural gasoline blendstock to produce E85 could lower the cost and increase the use of E85. Also, E16–50 blends are considered gasoline under the EPA's current regulations and are subject to all of the EPA regulatory requirements that apply to gasoline, even though such blends currently may only be used in FFVs. The gasoline refiner requirements also extend to service stations when E16–50 is produced at blender pumps. Gasoline refiners produce gasoline by refining crude oil or by mixing blendstocks of undefined quality in large volumes.[15] Hence, they are required to demonstrate compliance with EPA gasoline quality standards by testing each batch. However, these sampling, testing, recordkeeping, and reporting requirements are not suited to fuel retail. The purpose of this proposal is to ensure the quality of E16–83 blends used in FFVs and FFV emissions control performance while clearing the path for the greater use of E16–83 blends by aligning the EPA's fuel regulations with the current dynamics in the marketplace and making it clear which marketplace practices are and are not consistent with those regulations. We are proposing to refer to all higher level ethanol blends (E16–83) that may only be used in FFVs as ethanol flex fuel (EFF) and to regulate these blends in the same fashion.[16] We request comment on the proposed naming convention for E16–83 blends. This proposal allows several streamlined processes for certain parties that produce EFF to demonstrate compliance with the proposed standards. Parties that use these streamlined approaches would still be liable for standards violations, unless they could demonstrate that they met the affirmative defenses set forth in the regulations.

FFVs are vehicles that are designed to operate on any gasoline-ethanol mixture between pure gasoline (E0) and 85 percent denatured ethanol (E85). FFVs have been manufactured and introduced into commerce since 1996, and represent more than 6 percent of the current vehicle fleet and approximately 25 percent of new light-duty vehicles produced in 2014. Given that FFVs tend to be newer vehicles that are driven more than older vehicles, FFVs account for nearly 8 percent of all light-duty vehicle miles traveled.[17] However, the vast majority of fuel used in FFVs is currently gasoline.[18] Although the

[10] See 79 FR 23529 (April 28, 2014). FFVs are designed to operate on any gasoline-ethanol blend from 0 volume percent ethanol (E0) to 83 volume percent ethanol (E83).

[11] See 79 FR 23414, 23558 (April 28, 2014).

[12] E51–83 refers to gasoline-ethanol blends that contain from 51 volume percent to 83 volume percent ethanol.

[13] ''E85'' refers is to the maximum potential concentration of DFE in an E51–83 blend, assuming a 2 percent denaturant concentration in the DFE used to make E51–83. Industry consensus standards for E51–83 are found in ASTM D5798–14, ''Standard Specification for Ethanol Fuel Blends for Flexible-Fuel Automotive Spark-Ignition Engines.''

[14] See 78 FR 29818 (May 21, 2013) and ''Possible Approach to Fuel Quality Standards for Fuel Used in Flexible-Fuel Automotive Spark-Ignition Vehicles (FFVs)'' (Docket Item No. EPA–HQ–OAR–2011–0135–0529).

[15] The terms ''refinery'' and ''refiner'' are defined in 40 CFR 80.2(h) and (i), respectively.

[16] We understand that some parties currently refer to E51–83 as EFF. We believe that it will resolve confusion to refer to all higher level ethanol blends that may only be used in FFVs as EFF. In 2011, the EPA issued a partial waiver to allow 15 volume percent ethanol to be used in 2001 and later light duty motor vehicles (*i.e.,* conventional gasoline vehicles). See 76 FR 4662 (January 26, 2011). Should a similar waiver be issued in the future to allow the use of an ethanol blend greater than E15 (*e.g.,* E20) in conventional gasoline vehicles, such a blend would no longer be regulated as EFF and would be subject to the requirements for gasoline.

[17] EIA, ''2015 Annual Energy Outlook,'' *http://www.eia.gov/forecasts/aeo/pdf/0383(2015).pdf.*

[18] In the RFS annual rulemaking for the 2014–2016 standards, we estimated that 150 million gallons of EFF was used in FFVs in 2014 compared

volume of EFF blends currently used in FFVs is relatively small, it could increase substantially in the future in response to the EPA's RFS program. FFVs are equipped with the same type of emission control systems as are conventional gasoline vehicles.[19] Hence, whether FFVs are operating on E0, E85, or any level of ethanol in between, to maintain emission performance the vehicles still need the fuel to meet quality specifications consistent with those for gasoline, such as the 10 ppm average sulfur standard in the Tier 3 gasoline sulfur program,[20] the 0.62 volume percent average benzene standard in the gasoline benzene program,[21] and a Reid vapor pressure (RVP) consistent with that for which the vehicle was designed. Although FFVs are equipped with the same type of evaporative emissions control systems as conventional gasoline vehicles, such systems on FFVs are designed for higher volatility fuel. Thus, FFVs can tolerate somewhat higher volatility fuel than gasoline while delivering the same level of evaporative emissions control compared to conventional gasoline vehicles.[22]

By broadening the range of blendstocks that can be used to produce EFF, and thereby providing the opportunity for the production of lower cost EFF, this proposal encourages increased use of EFF. We anticipate that the volume of higher-level ethanol blends used in FFVs will increase substantially as the volume requirements of the RFS increase, and this proposal is intended to support this growth. Public and private initiatives are also currently underway to expand the use of blender pumps that dispense a variety of gasoline-ethanol blends for use in FFVs.[23] Therefore, it is becoming increasingly important that all fuels used in FFVs, not just gasoline, meet fuel quality standards. Regulations specifically crafted to regulate fuels used in FFVs should help to facilitate further expansion of ethanol blended fuels, which is important in satisfying the requirements of the RFS program. For these reasons, we believe it is important that clear quality standards apply to any fuel used in an FFV, including sulfur, benzene, RVP, and composing only of carbon, hydrogen, oxygen, nitrogen, and sulfur, or ''CHONS.''

It is important to note that the focus and application of this proposal is on the requirements for fuels used in FFVs. However, we are also separately proposing streamlined compliance provisions regarding the production of E15 at blender pumps. Apart from these proposed streamlined provisions for the production of gasoline at blender pumps, the EPA's existing fuel regulations, including waiver provisions, would continue to apply for fuels used in gasoline- and diesel-powered vehicles. For example, the EPA would need to approve a new waiver request for E16 or other higher-level ethanol blends to be used in gasoline vehicles.

3. Other Proposed Amendments to the RFS and Fuels Programs

In this action we are also proposing a number of amendments to the RFS regulations. First, the EPA is proposing registration, recordkeeping, and reporting requirements that we would use if we were to allow carbon capture and storage (CCS) as a lifecycle GHG emissions reduction technology in the context of the RFS program.[24] The capture and geologic sequestration of the carbon dioxide (CO_2) produced from ethanol fermentation, for example, could substantially reduce the lifecycle GHG emissions associated with the production of the renewable fuel. As discussed in section V of this preamble, this proposal relies substantially on other relevant EPA regulatory programs already in place concerning sequestration of CO_2.

Second, we are proposing to approve new pathways for the production of cellulosic fuels using short-rotation hybrid poplar and willow trees as a feedstock. These new pathways would allow for ethanol and naphtha produced from these feedstocks to qualify for cellulosic biofuel (D-code 3) RINs, and for diesel, jet fuel, and heating oil produced from these feedstocks to qualify for cellulosic biomass-based diesel (D-code 7) RINs. As discussed in section VI of this preamble, our analysis shows that fuel produced from short-rotation hybrid poplar and willow trees using a variety of processing technologies meets the 60 percent GHG emissions reduction threshold needed to qualify for cellulosic biofuel (D-code 3) RINs and cellulosic biomass-based diesel (D-code 7) RINs.

Third, we are seeking comment on several potential approaches for the generation of RINs for electricity that is produced from biogas and used as a transportation fuel. The EPA has received a number of registration requests for approval under the existing RFS regulations and these requests envision generation of RINs by different types of entities in the renewable electricity production, distribution or use sectors, using different types of information to verify the use of renewable electricity as transportation fuel. Given the diversity of the registration requests submitted to date, and the necessity of avoiding the generation of multiple RINs for the same quantity of electricity, the approval of any one of these proposed systems may preclude in whole or in part the approval of others. As discussed in section VII of this preamble, the EPA seeks input on the approach to RIN generation for renewable electricity that would best further the goals of the RFS program, but does not propose a preferred approach.

We are also proposing to make several additional revisions to the RFS regulations, which include:

New and Revised Provisions Related to Renewable Fuel Production Pathways

- Clarifying what corn oil may be used as a feedstock for existing renewable fuel production pathways and revising the definition of ''corn oil extraction.''
- Approving new pathways for the production of renewable diesel and biodiesel from non-cellulosic portions of separated food waste.
- Expanding the current definition of heating oil to include fuels that are used to cool interior spaces of homes or buildings.
- Revising the requirements for separated food waste plans.
- Approving a new pathway for the production of cellulosic diesel, jet fuel, and heating oil from cellulosic biomass that is co-processed with petroleum.
- Revising the requirements for the generation of RINs for fuel made from vegetable oils.

to the use of approximately 139 billion gallons of gasoline for transportation purposes. See 80 FR 77420 (December 14, 2015).

[19] We use the term ''conventional gasoline vehicles'' in this preamble to refer to conventional vehicles that are designed to operate on gasoline.

[20] See 40 CFR part 80, subpart O.

[21] See 40 CFR part 80, subpart L.

[22] See 40 CFR part 80, subpart B.

[23] Blender pumps make mid-level ethanol blends by mixing two parent blends stored in different storage tanks. The U.S. Department of Agriculture (USDA) Biofuel Infrastructure Partnership, with public and private funding of $210 million, is targeting the installation of nearly 4,900 EFF retail dispensers during 2016, the majority of which are anticipated to be blender pumps. Growth Energy has a ''Blend Your Own Ethanol'' program to encourage the installation of ethanol blender pumps that dispense a range of ethanol blend levels for use in FFVs.

[24] While we are not proposing to add a generally applicable CCS technology to an approved pathway in the RFS regulations, we do believe it is appropriate to propose the necessary registration, recordkeeping, and reporting requirements that would generally govern the use of CCS if and when such a pathway is approved.

Miscellaneous Regulatory Revisions

- Requiring obligated parties to report the breakdown of gasoline, diesel, and heating oil production as part of their annual compliance reports.
- Establishing a cut-off date for the submission of registration requests related to new or expanded baseline volumes that are exempt from the GHG reduction thresholds.
- Allowing parties that blend renewable fuel to produce transportation fuel under a national security exemption (NSE) to delegate to an upstream party the Renewable Identification Number (RIN)-related responsibilities.
- Revising and clarifying the requirements for renewable fuel producers incident to the transfer of ownership of a registered renewable fuel production facility.
- Modifying the requirements for third-party engineers that perform engineering reviews for renewable fuel producers.
- Adding additional circumstances that may justify action by EPA to deactivate a company's RFS registration.
- Requiring biogas producers whose biogas is used to produce renewable electricity, compressed natural gas (CNG), or liquid natural gas (LNG) to register with the EPA.
- Consolidating the requirements for RIN retirement into a new section in the RFS regulations.
- Specifying what RIN transactional information and RFS compliance information that is submitted through EMTS is entitled to treatment as CBI, and that certain RIN-related information cannot be claimed as CBI when it is central to describing specified actions by the EPA (including decisions by the EPA on small refinery and small refiner hardship petitions), and EPA enforcement-related actions such as notices of violations and criminal indictments.
- Specifying the types of feedstocks that can be used at grandfathered facilities to produce qualifying renewable fuel that is exempt from the 20 percent lifecycle GHG reduction requirement.
- Removing the option for RIN-generating foreign producers to pay the required bond amount to the U.S. Treasury instead of obtaining a bond in the proper amount from a third-party surety agent.
- Addressing situations where a party is aware that renewable fuel it intends to transfer will be used for purposes other than as transportation fuel, heating oil, or jet fuel.
- Making numerous technical corrections that update addresses, references, and other minor edits.

Finally, we note that we may choose to finalize some or all of the amendments contained in this proposed rulemaking.

II. General Information

A. Does this action apply to me?

Entities potentially affected by this proposed rule are those involved with the production, distribution, and sale of transportation fuels, including gasoline and diesel fuel or renewable fuels such as ethanol, biodiesel, renewable diesel, and biogas. Potentially regulated categories include:

Category	NAICS [1] code	Examples of potentially affected entities
Industry	211112	Natural gas liquids extraction and fractionation.
Industry	211112, 324110	Ethanol denaturant manufacturers.
Industry	221117	Biomass electric power generation.
Industry	221210	Manufactured gas production and distribution.
Industry	324110	Petroleum refineries (including importers).
Industry	325110	Butane and pentane manufacturers.
Industry	325193	Ethyl alcohol manufacturing.
Industry	325199	Other basic organic chemical manufacturing.
Industry	325199	Manufacturers of gasoline and E85 additives.
Industry	336111, 336112	Light-duty vehicle and light-duty truck manufacturers.
Industry	424690	Chemical and allied products merchant wholesalers.
Industry	424710, 424720	Petroleum Bulk Stations and Terminals; Petroleum and Petroleum Products Wholesalers.
Industry	447110, 447190	Fuel Retailers.
Industry	454310	Other fuel dealers.
Industry	486910	Natural gas liquids pipelines, refined petroleum products pipelines.
Industry	493190	Other warehousing and storage—bulk petroleum storage.

[1] 2012 North American Industry Classification System (NAICS).

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that the EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your entity is regulated by this action, you should carefully examine the applicability criteria in the referenced regulations. If you have any questions regarding the applicability of this action to a particular entity, consult the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

B. What action is the agency taking?

In this action, the EPA is taking steps to bring our RFS and gasoline regulations more in line with marketplace changes in an effort to further advance the goals of the RFS program by facilitating the production and use of renewable fuels in the transportation sector. As discussed in section III of the preamble, we are proposing changes to the RFS regulations to generally allow the use of biointermediates in renewable fuel production, thereby facilitating the increased production of renewable fuels, including cellulosic and other advanced biofuels. As discussed in section IV of this preamble, we are proposing standards that will address the public health and welfare effects of EFF and its impact on emissions control devices on FFVs and FFV engines under CAA section 211(c). Our proposed provisions would support the increased production and use of higher-level ethanol blends by treating all E16–83 as EFF (instead of continuing to treat E16–50 as gasoline), implement new environmentally protective fuel quality specifications for EFF, and allow for the use of lower cost blendstocks in EFF, thereby advancing the goals of the RFS program by facilitating the increased use of ethanol in transportation fuel and, in particular, at levels beyond those associated with the use of E10 alone. Finally, as discussed in sections V, VI,

VII, VIII, and IX of this preamble, we are also proposing a number of other regulatory changes to the RFS program and fuel regulations that would add new pathways, reduce opportunities for parties to commit RIN fraud, provide clarification to existing regulations, and make a number of technical corrections.

C. What is the agency's authority for taking this action?

Statutory authority for this action comes from Clean Air Act sections 203–205, 208, 211, and 301.

D. What are the incremental costs and benefits of this action?

Through the proposed provisions for EFF, biointermediates, and new renewable fuel production pathways, this action would provide significant regulatory flexibility, streamlined compliance provisions, and the opportunity for increased biofuel production at reduced cost. As we are primarily providing parties with new flexibilities to produce EFF or renewable fuel, we expect that parties would only elect to take advantage of these proposed flexibilities if the potential economic benefits outweigh the added cost. We expect that, in general, the cost savings associated with these new provisions would far outweigh any minor costs for demonstrating compliance. This proposal also contains minor additional requirements that would apply to some biofuel producers and distributors; however, the costs associated with these requirements are expected to be very small. A more detailed discussion of the economic impacts of this action can be found in section X of this preamble.

III. Biointermediates

A. Background

One of the goals of the RFS program is to reduce the amount of GHGs emitted as transportation fuel by increasing the amount of cellulosic and advanced biofuels consumed by on-road and offroad vehicles and engines. While the RFS program has had success in promoting the use of conventional biofuel (primarily corn ethanol) and advanced biofuels (primarily biodiesel), the production and use of cellulosic biofuels has noticeably lagged behind. As noted in the preamble to the final rule establishing RFS standards for 2014, 2015, and 2016,[25] under the statute, cellulosic biofuel was intended to fill 4.25 billion gallons out of the 7.25 billion gallons advanced biofuel applicable volume target for 2016. In reality, cellulosic biofuel is expected to be only 0.23 billion gallons for 2016. The supply of other advanced biofuels has increased under the influence of the RFS program, but those increases were insufficient to reach the statutory volume target. We expect the gap in advanced biofuels created by the shortfall in cellulosic biofuel to widen further in the future as the statutory volume targets quickly increase but the actual supply potential increases at a slower rate.

The RFS registration, reporting, recordkeeping, and PTD requirements were designed with the general expectation that renewable biomass would be converted into renewable fuel at a single facility (*e.g.,* a renewable fuel producer purchases corn directly from several farmers in a region, crushes the corn in a mill, and then ferments the corn into ethanol, all on the same site). The regulations therefore impose requirements on renewable fuel producers to provide the EPA with information necessary to verify that their fuel was made with qualifying renewable biomass, through production processes corresponding with approved pathways, and in volumes corresponding to feedstocks used. Such information submissions render the EPA's oversight and enforcement roles far more manageable, leading to increased integrity and confidence in the program as a whole. Since the RFS2 regulatory program was implemented in 2010, however, the EPA has received a number of inquiries from companies regarding the possible use of renewable biomass that has been substantially pre-processed at one facility to produce feedstock (referred to as a biointermediate) that is used at a different facility to produce renewable fuel for which RINs would be generated. For example, Sweetwater Energy and Ensyn both state they have developed technologies where cellulosic biomass is pre-processed and concentrated at one facility prior to shipment to another facility for conversion to renewable fuel. The pre-processed, concentrated feedstock is a biointermediate.

Sweetwater Energy's technology converts cellulosic biomass feedstocks to cellulosic sugars using a modular approach. They plan to build relatively small facilities near the bulk feedstock source and transport the concentrated sugars they produce to a larger facility where they will be converted into renewable fuels and chemicals. At this time, Sweetwater is not able to register to produce cellulosic biofuel due to their multiple-facility approach to renewable fuel production.

Ensyn's technology, known as Rapid Thermal Processing, involves the non-catalytic thermal conversion of woody biomass feedstocks to produce renewable chemicals, food additives, and heating oil at five commercial facilities in Wisconsin and Ontario, Canada. Ensyn registered its Ontario facility under the RFS program in 2014 and has generated cellulosic biomass-based diesel (D-code 7) RINs related to sales in the U.S. of its primary fuel product, known as renewable fuel oil (RFO), as a replacement for heating oil. They also plan to sell the RFO to petroleum refineries as a feedstock that can be further processed to produce renewable gasoline and diesel if the use of biointermediates is approved by the EPA.[26]

The EPA believes that the use of biointermediates to produce renewable fuels is a reasonable and positive development in this developing industry and holds considerable promise for the future growth in production of the cellulosic and advanced biofuels. While near-term production may be modest, significant potential for further growth in the long-term exists, as these technologies can lower the cost of using cellulosic and other feedstocks for the production of renewable fuels by reducing the storage and transportation costs associated with bulky feedstocks and taking advantage of existing ethanol and petroleum refinery assets to convert the biomass to renewable fuel. This makes biointermediate production and use an important component of the growth of the RFS program in the future, especially the growth of the cellulosic biofuel volumes.

However, scenarios involving the use of biointermediates to produce renewable fuel pose significant concerns for the EPA in terms of ensuring that the finished fuel was made with qualifying renewable biomass, through production processes corresponding with approved RIN-generating pathways, and in volumes corresponding to feedstocks used. Companies requesting to be allowed to use a biointermediate have asked the EPA to approve their production process and allow for RIN generation by the eventual renewable fuel producer. To address the EPA's concerns about the potential for RIN fraud, many companies also offered to be subject to oversight requirements more stringent than those in the current

[25] See 80 FR 77420 (December 14, 2015).

[26] As discussed further in section III.B of this preamble, if a biointermediate producer were to generate RINs on a given batch of its product for use as heating oil, then the batch would not be considered a biointermediate and further RINs could not be generated downstream by a renewable fuel producer (such as a petroleum refinery).

RFS regulations, such as the voluntary RFS QAP.

In response to these requests, the EPA has stated that the existing RFS provisions are insufficient to generally allow RINs to be generated in situations wherein multiple facilities are involved in the conversion of renewable feedstocks into renewable fuel. We also stated that we believed that the most straightforward approach to address this issue was through the rulemaking process. This proposed rule begins that rulemaking process. As described further below, this proposal provides a set of requirements that will enable the production and use of biointermediates to make renewable fuel for which RINs can be generated. The EPA seeks comment on the proposed biointermediate regulatory program described below. We also seek comment from potential producers of biointermediates on the current status of operations, potential production volumes, timelines for production, and any other information that may help inform the EPA as to the expected use of biointermediates to produce renewable fuel in the future.

B. Definition of Biointermediate

We are proposing to define a biointermediate as any renewable fuel feedstock material that meets all of the following criteria:

- It is derived from renewable biomass.
- It does not meet the definition of renewable fuel and RINs were not generated for it.
- It is produced at a facility that is registered with the EPA, but which is different than the facility at which it is used to produce renewable fuel.
- It is made from the feedstock and will be used to produce the renewable fuel in accordance with the process(es) listed in the approved pathway.
- It is processed in such a way that it is substantially altered from the feedstock listed in the approved pathway.

In addition, we are proposing that any feedstock listed in Table 1 to 40 CFR 80.1426 or in an approved pathway pursuant to 80 CFR 80.1416 is not a biointermediate, and that a mere ''form change'' to renewable biomass does not create a biointermediate. We note that in many existing traditional operations, there is some degree of physical pre-processing of renewable biomass to make feedstocks listed in Table 1 to 40 CFR 80.1426 and in pathways approved pursuant to 40 CFR 80.1416. Such pre-processing may occur under the existing regulations at a different facility than the facility producing renewable fuel. For example, the planted crop soy beans are crushed to make the soy bean oil feedstock listed in pathways F and H in Table 1 to 40 CFR 80.1426, and such crushing often occurs at locations other than the renewable fuel production facility. Since soy oil is a feedstock listed in Table 1, the proposed definition of biointermediate would not include soy bean oil notwithstanding this crushing activity. For feedstocks listed in Table 1 to 40 CFR 80.1426, we do not believe that the additional proposed regulatory requirements for processes using a biointermediate are necessary to ensure that RINs are only generated for qualifying fuel. In addition, certain processing of feedstocks would not result in sufficient alteration to result in a biointermediate. Some examples of processing involving form changes that would not result in the production of a biointermediate include the following:

- Chopping biomass into small pieces, pressing it, or grinding it into powder.
- Filtering out suspended solids from recycled cooking and trap grease.
- Degumming vegetable oils.
- Drying wet biomass.
- Adding water to biomass to produce a slurry.

We are proposing that renewable biomass subject to these types of processing would be excluded from the definition of a biointermediate and, therefore, that such activities can be conducted at a different facility than the facility producing renewable fuel without triggering the need for the additional recordkeeping, reporting, and registration requirements being proposed for producers of biointermediates. Similarly, the separation activities described in 40 CFR 80.1426(f)(5) that are required for yard waste, food waste, or municipal solid waste (MSW) to be considered renewable biomass would not be viewed as creating a biointermediate. Finally, as is generally the case for all feedstocks used in renewable fuel production, the presence of incidental, *de minimis* contaminants in a biointermediate that are impractical to remove and are related to customary feedstock production and transport may be disregarded in determining whether biofuel is produced from renewable biomass in accordance with an approved pathway.[27]

We note that based on our proposed definition of biointermediate, undenatured ethanol that is subsequently denatured at a separate facility would be considered a biointermediate. Under the current RFS provisions, ethanol does not become a renewable fuel until a producer adds denaturant in accordance with the requirements of the Alcohol and Tobacco Tax and Trade Bureau of the U.S. Treasury Department at 27 CFR parts 19–21. Only after a renewable fuel producer has denatured the ethanol can they generate RINs for it; the domestic producer of the undenatured ethanol is not currently subject to any RFS requirements. Under the proposed biointermediate definition, the producer of the undenatured ethanol would be required to register as a biointermediate producer and the party that denatured the ethanol would be required to register as a renewable fuel producer.

Unlike domestic producers, foreign ethanol producers typically do not denature their ethanol product, but instead rely on importers to add denaturant and generate RINs for the finished renewable fuel. Reflecting this practice, the current RFS regulations require that foreign ethanol producers register with the EPA similar to renewable fuel producers (*i.e.,* undergo an engineering review and submit similar registration information). If we finalize the proposed provisions for producers of biointermediates, then the current special regulatory requirements for foreign ethanol producers may no longer be necessary, since such producers would be registered and regulated as biointermediate producers. Therefore, we are seeking comment on whether to remove the foreign ethanol producer requirements. If we were to remove the foreign ethanol producer requirements, we would not, however, remove other requirements for the importers of such foreign ethanol (*e.g.,* third-party volume verification under 40 CFR 80.1466).

C. Implications of Using Biointermediates for Lifecycle GHG Assessments

The EPA has evaluated whether any revisions would need to be made to Table 1 to 40 CFR 80.1426 if biointermediates were generally allowed to be used. Table 1 lists the generally-applicable pathways for the production of non-grandfathered renewable fuel. The pathways include D codes, which correspond to the RFS fuel category for which the finished renewable fuel qualifies (*e.g.,* cellulosic biofuel, biomass-based diesel, etc.). These fuel categories have corresponding lifecycle GHG emissions reduction requirements that the EPA determined were satisfied when it established the pathways. As discussed below, the EPA is proposing to maintain the existing pathways in

[27] See 40 CFR 80.1426(f)(1).

Table 1 to 40 CFR 80.1426, with the understanding that the pathways can be followed through the production and use of a biointermediate.

Under the RFS program, the EPA must assess lifecycle GHG emissions to determine which fuel pathways meet the GHG reduction thresholds for the four required renewable fuel categories. For the 2010 RFS2 final rule, the EPA assessed the lifecycle GHG emissions of multiple renewable fuel pathways and classified pathways based on these GHG thresholds, as compared to the 2005 statutory baseline.[28] In addition, the EPA has added several pathways since the 2010 rule was published. Expanding the RFS program to allow for the use of biointermediates to produce renewable fuel does not affect these prior analyses.

The pathways consist of fuel type, feedstock, and production process requirements. GHG emissions are assessed at all points throughout the lifecycle pathway. For instance, emissions associated with sowing and harvesting of feedstocks and in the production, distribution, and use of the renewable fuel are examples of what are accounted for in the GHG assessment. A full accounting of emissions is then compared with the petroleum baseline emissions for the conventional fuel being replaced. The lifecycle GHG emissions determination is one factor used to determine compliance with the RFS regulations.

There are currently over a dozen renewable fuel pathways with various types of feedstocks and production processes used, qualifying the pathways as either conventional (D-code 6), biomass-based diesel (D-code 4), advanced (D-code 5), or cellulosic (D-code 3). The EPA also created a cellulosic biomass-based diesel (D-code 7) category for fuels that can qualify as both biomass-based diesel and cellulosic biofuel. The lifecycle GHG emissions determinations for these different pathways were based on the assumption that the feedstocks listed would be converted to renewable fuel at a single facility.

If the EPA were to generally allow the use of biointermediates, one main difference in GHG emissions would potentially be the additional emissions associated with transporting the biointermediate from the biointermediate production facility to the renewable fuel production facility. However, it is expected that overall transportation emissions would decrease, since bulk biomass would typically be transported a shorter distance to the biointermediate production facility. For example, the lifecycle GHG assessment for existing pathways already accounts for feedstock and fuel transportation, so if a biointermediate facility is located close to feedstock production it would reduce unprocessed feedstock transport emissions. Biointermediate transport emissions would be added but typically biointermediates are more energy dense than unprocessed feedstock and would have lower GHG emissions associated with transport.

Furthermore, lifecycle GHG emissions could also be reduced with a biointermediate pathway vs. a single facility pathway by allowing upstream and downstream processing to be better optimized for the production of the biointermediate and the fuel respectively. Also, the biointermediate pathway could offer the opportunity to leverage greater economies of scale for improved efficiency when processing or refining biointermediates into finished fuel products also reducing lifecycle GHG emissions.

Based on these considerations, the EPA believes the GHG emissions associated with producing renewable fuel from a biointermediate will be the same or less than the GHG emissions associated with producing renewable fuel from feedstocks listed in Table 1 to 40 CFR 80.1426 at a single facility. Therefore, the original lifecycle analyses for the renewable fuel pathways listed in Table 1 to 40 CFR 80.1426 support allowing a biointermediate to be used to produce renewable fuel for the existing pathways. Once the regulatory change to allow the use of biointermediates is final, all of the pathways currently applicable to renewable fuel under Table 1 to 40 CFR 80.1426 will allow for the use of biointermediates. This assumes, of course, that the same conversion processes that are specified for the pathway are used, even if they occur at more than one facility. Of course, fuel cannot be made from a biointermediate for a pathway that is not listed in Table 1 to 40 CFR 80.1426 or otherwise approved by the EPA; parties seeking to use a new pathway (with or without the production and use of a biointermediate) must petition the EPA for a new pathway approval pursuant to 40 CFR 80.1416.

D. Applicable Pathways Involving Biointermediates and RIN Generation

We are proposing that the approved pathways in Table 1 to 40 CFR 80.1426 (as well as those approved in response to petitions submitted pursuant to 40 CFR 80.1416) would continue to identify the feedstocks and processes that are acceptable to make renewable fuel for the respective pathways; however, if this proposal were finalized, the processes specified could be conducted in more than one facility. Since biointermediates would be altered from the feedstocks listed in Table 1 to 40 CFR 80.1426, the renewable fuel producer would require sufficient information from the biointermediate producer to verify that the biointermediate is made from the feedstock listed in the approved pathway being used by the renewable fuel producer.[29] Similarly, the biointermediate producer would need sufficient documentation from their feedstock suppliers to demonstrate that the feedstock used to produce the biointermediate was renewable biomass. The renewable fuel producer would have to keep records and report to the EPA who supplied the biointermediate used to produce the renewable fuel for which RINs were generated. The biointermediate producer would also have to keep records and report to the EPA who supplied the feedstocks used to produce the biointermediate.

In general, we are proposing that from the perspective of a renewable fuel producer, a qualifying biointermediate would be treated as being equivalent to the renewable feedstock from which it was derived for purposes of identifying the appropriate RIN-generating pathway from Table 1 to 40 CFR 80.1426. However, there are several cases in which we believe this would be inappropriate. These cases would be those in which certain non-characteristic portions of a renewable feedstock were separated or extracted into a concentrated biointermediate that was inconsistent with the predominant constituents of the feedstock in the approved pathway. For instance, if oils or sugars were extracted (physically separated) from cellulosic feedstocks to produce a concentrated oil or sugar biointermediate, those oils or sugars would not be viewed as representing a cellulosic feedstock, as they would not contain cellulose, hemicellulose, or lignin and were not derived from cellulose, hemicellulose, or lignin.[30] It would not be appropriate for those oils or sugars to be used to produce a fuel

[28] See Table 1 to 40 CFR 80.1426.

[29] The information that the biointermediate producer must provide to the renewable fuel producer is described in section III.G of this preamble.

[30] CAA section 211(o)(1)(E) states that cellulosic biofuel (renewable fuel with a D-code of 3 or 7) must be derived from a feedstock comprised of cellulose, hemicellulose, or lignin.

that qualifies as cellulosic biofuel under the RFS program.[31]

We are not proposing to change the current system in which, with very few exceptions, only the renewable fuel producer would be permitted to generate RINs. This means that the party that produces renewable fuel from a biointermediate would generate RINs, rather than the producer of the biointermediate. We believe this approach would be the easiest to both implement and enforce, and would involve no disruption from current practices. If we were to allow for different points of RIN generation, it would add unnecessary complexity and difficulty to the program, and introduce an opportunity for fraudulent double-generation of RINs for the same volume of renewable fuel. Our proposal would not preclude renewable fuel producers from entering into contracts with biointermediate producers that would provide for transfer of some or all of the RIN value to the biointermediate producer, but for the purposes of RIN generation and assignment within the EPA Moderated Transaction System (EMTS), only the renewable fuel producer would be able to generate and assign the RIN (except to the extent that the regulations related to a particular pathway specifically provide otherwise).

We are not proposing to change the current flexibility for RIN generation for renewable electricity and CNG/LNG made from biogas. Although we proposed to limit the parties allowed to generate such RINs in the final Pathways II rule, we deferred finalizing that aspect of our proposal, pending further consideration.[32] As a result, it is currently possible for the EPA to approve, as part of the registration process, parties in the biogas distribution system other than the ultimate renewable fuel producer to generate RINs, so long as they provide documentation (*e.g.,* contracts, affidavits) showing that no other party in the system relied upon the biogas for the creation of RINs and that the finished fuel is used as transportation fuel.[33] The one party approved to generate RINs for a given volume of renewable electricity or CNG/LNG from biogas is responsible for providing the EPA with all the necessary information and supporting documentation in their registration, reporting, and recordkeeping to track and verify the production of raw biogas from its original source, and all the processing steps and distribution in-between, to the last step where the fuel is actually used for transportation purposes. Under this proposal, we are not changing the current opportunities related to the point of RIN generation for biogas used to make renewable electricity or CNG/LNG for transportation purposes. The EPA continues to evaluate this matter, and may issue a final rule based on these elements of the Pathways II NPRM at a future date.

In the 2010 RFS2 final rule, the EPA promulgated requirements for the generation of RINs for renewable fuel co-processed with petroleum-based fuels, and provided two methods for determining the renewable content of co-processed fuels: (1) Mass balance; or (2) Using Methods B or C of ASTM D6866 C–14 testing.[34] Some companies that have expressed interest in producing biointermediates have suggested processes that would use a biointermediate co-processed with petroleum at a crude oil refinery to produce a partially renewable fuel for which RINs would be generated (*i.e.,* partially renewable gasoline and partially renewable diesel). After reviewing information submitted by these companies, we are concerned with the ability of the mass balance approach to accurately and precisely determine the number of RINs that can be generated for a co-processed partially renewable fuel made from a biointermediate feedstock. The volume of biointermediate co-processed with petroleum at a refinery would likely be a small fraction of the refinery's throughput and would make it difficult to rely on a mass balance approach for RIN generation and may lead to the generation of RINs for the non-renewable portion of the co-processed fuel. Additionally, Method B of ASTM D6866 has greater precision compared with Method C. Given the challenge of calculating a precise and accurate number of RINs from co-processed partially renewable fuel produced from a biointermediate, we are proposing that only Method B of ASTM D6866 could be used to determine the renewable content of co-processed fuels when a biointermediate is used.

We recognize that co-processing configurations are highly complex and varied and that proposing Method B of ASTM D6866 as the only method to determine renewable content of co-processed fuels produced from biointermediate feedstocks may place a high cost on parties that generate RINs from co-processed fuels. One potential option would be to require Method B of ASTM D6866 as the default method for determining renewable content of co-processed partially renewable fuel produced from a biointermediate and allow parties to petition the EPA to use other methods for determining the renewable content based on the unique process of the company producing the co-processed fuel. In some cases an appropriately characterized mass balance approach may provide reasonable assurance that RINs are not being attributed to non-qualifying fuels (*i.e.,* the co-processed petroleum-based portion of the fuel), especially in cases where the biointermediate constitutes a large portion of the blendstock used to produce the co-processed fuel. That being said, with the expected small number of parties likely to generate RINs from this situation, allowing parties to petition the EPA for alternative methods would most likely result in the EPA being petitioned by every party that wishes to generate RINs from co-processed partially-renewable fuel produced from a biointermediate. Based on experience processing these type of petitions, the review and approval of such petitions can take a significant amount of time, which could delay the registration of parties wishing to generate RINs from co-processed partially-renewable fuel produced from a biointermediate.

We seek comment on whether only allowing Method B of ASTM D6866 for RIN generation for this situation is appropriate. We also seek comment on whether other methods should be allowed and if so what methods could produce similar accuracy and precision to Method B of ASTM D6866 for purposes of measuring renewable content in co-processed fuels. For any suggested methods, we request a thorough description of the method and data that helps establish the relative accuracy and precision of the method. Lastly, we seek comment on whether the EPA should allow parties to petition for the use of a company-specific method to determine the renewable content of co-processed partially-renewable fuel produced from a biointermediate.

Finally, due to the potential complexity involved in determining the validity of RINs generated for renewable fuel produced from a biointermediate, we are proposing that if the EPA determines that any of the RINs in any batch of renewable fuel produced from

[31] Consistent with the approach taken in the Pathways II rulemaking, we are proposing that a biointermediate that is produced from the chemical conversion of cellulosic feedstocks would continue to be treated as an entirely cellulosic feedstock if 75 percent or more of the resulting biointermediate is of cellulosic origin. See 79 FR 42128 (July 18, 2014).

[32] See 79 FR 42128 (July 18, 2014).

[33] See 40 CFR 80.1426(f)(12).

[34] See 40 CFR 80.1426(f)(4).

a biointermediate are invalid, then all such RINs generated for that batch of renewable fuel would be considered invalid except to the extent that the EPA, in its sole discretion, determines that some portions of these RINs would be valid.

E. Number of Parties Allowed To Make a Given Biointermediate, and Their Potential Liability for Violations

We are proposing that the processing of a feedstock listed in an approved pathway into a biointermediate may only occur at a single facility before the biointermediate is transported to a renewable fuel production facility. Hence, there will only be two parties involved in the transformation of a feedstock listed in an approved pathway into renewable fuel, which will make it much more straightforward for the EPA to track and enforce. While it is possible that the production of certain biointermediates may require processing at multiple facilities in the future, most if not all of the inquiries that the EPA has received so far regarding biointermediates have only involved two facilities: One to produce the biointermediate and another to turn the biointermediate into renewable fuel. There are also numerous implementation and enforcement concerns associated with allowing more than one facility to be involved in the production of a given biointermediate, as each extra production step adds another layer of complexity and potential for fraud to occur. Thus, we are not proposing to allow for multiple facilities to be involved in the production of a biointermediate at this time.[35] However, we may revisit this issue in the future if new production technologies develop that call for the sequential processing of an approved feedstock listed in Table 1 to 40 CFR 80.1426 at more than one biointermediate facility prior to its use at a renewable fuel production facility. We seek comment on whether it is appropriate at this time to limit biointermediate production to occur at a single facility, or whether we should allow for multiple facilities to be involved sequentially in the production of a given biointermediate and if so, how to limit opportunities for fraud. We note, however, that under this proposal, a given renewable fuel production facility could source their biointermediates from more than one biointermediate production facility.

We are proposing registration, reporting, recordkeeping, and PTD requirements for parties involved in the production of biointermediates, as well as modified requirements for renewable fuel producers using biointermediates to make renewable fuel. We are also proposing that biointermediate and renewable fuel producers would be liable for violation of these requirements.

F. Additional Registration, Recordkeeping, and Reporting Requirements That Apply When a Biointermediate Is Used To Produce Renewable Fuel

In general, the renewable fuel producer is responsible for verifying and demonstrating that the renewable fuel they produce is derived from renewable biomass and was produced in accordance with an approved biofuel production pathway.[36] If the renewable fuel producer is using a biointermediate, however, the direct link between the renewable fuel producer and the renewable biomass/feedstock supplier would be lost. In such cases we are proposing that the biointermediate producer would verify and provide records (in the form of PTDs) to the renewable fuel producer that the feedstocks used to make the biointermediate meet the definition of renewable biomass and are part of the approved biofuel production pathway that the renewable fuel producer intends to rely on to generate RINs. Therefore, we are proposing the following additional registration, recordkeeping, and reporting requirements associated with biointermediates that would help provide the renewable fuel producer with the information necessary to verify that the fuel they produce qualifies as renewable fuel for which RINs may be generated.

1. Registration

We are proposing to require that biointermediate producers register with the EPA by facility in a manner similar to renewable fuel producers. We are also proposing slight modifications to the registration requirements for renewable fuel producers that wish to use a biointermediate to produce renewable fuel. The registration information submitted by the biointermediate producer would include the submission of basic company information (*e.g.,* company name, address of production facility, etc.) required for all EPA fuels program registrants. In addition, they would need to provide basic operational information, such as the capacity of their production facility, the processes utilized, the feedstocks they will use, a description of their biointermediate product, and the pathway(s) they believe the biointermediate product could be used in. We are proposing that biointermediate producers would need an independent third-party engineering review for each facility, which would include a site visit and review of the registration submission to independently evaluate the facility's ability to utilize the specified feedstocks and production processes that fall under an EPA-approved pathway. As discussed in section VIII.I of this preamble, we are also proposing modifications to the third-party engineering review requirements. Those modifications would apply to renewable fuel producers and biointermediate producers alike. Biointermediate producers would also need to identify renewable fuel producers that intend to use their biointermediate product. Existing renewable fuel producers would also need to update their registration information with similar information if they wished to begin using a biointermediate as a feedstock. Renewable fuel producers would also be required to enter into contracts and keep affidavits with their biointermediate suppliers. A biointermediate could not be used for renewable fuel production until the EPA had accepted both the biointermediate producer's and the renewable fuel producer's registration materials reflecting the production and use of the biointermediate. Similar to renewable fuel producer registrations, biointermediate producers would need to submit updated registration information every three years, including a new independent third-party engineering review. In addition, biointermediate producers would need to update their registration materials between three-year updates if specified changes in their operations occur. A biointermediate producer would be required to comply with any other applicable regulatory requirements related to the renewable feedstock (*e.g.,* submitting separated food waste plans and requirements related to the use of crop residue as a feedstock) that a renewable fuel producer that uses these renewable feedstocks directly (without reliance on a biointermediate) must submit to the EPA in the context of registration.

The EPA notes that although we intend to conduct a threshold review of registration materials prior to accepting

[35] This limitation would not apply to pre-processing that occurs upstream of the biointermediate producer and involves only ''form changes'' of a feedstock listed in Table 1 to 40 CFR 80.1426, such as chopping, grinding, etc.

[36] See 40 CFR 80.1454(c) and (d).

a registration submission, this threshold review is primarily to verify that the registration materials are complete. Thus, acceptance by the EPA of a registration submission does not represent a determination by the EPA of substantive compliance with applicable regulatory requirements. Biointermediate and renewable fuel producers are responsible for ensuring on a continuing basis that all regulatory requirements are satisfied, including the requirement to only use renewable biomass feedstocks, and to produce renewable fuel in compliance with approved pathways. Thus, as has been the case since the inception of the RFS program, parties should not assume that the EPA approves the use of feedstocks or production processes described in a registration submission simply because the EPA has accepted a party's registration application. The EPA intends to review materials submitted by registered entities to determine substantive compliance with the program on a priority basis based in part on the availability of time and resources, and in part on indications of potential compliance concerns.

We seek comment on whether there are any additional registration requirements needed for biointermediate producers or renewable fuel producers to help ensure that the parties themselves and EPA enforcement personnel have available to them the information necessary to ensure the appropriate production and use of biointermediates.

2. Reporting Requirements

We are proposing that biointermediate producers would submit quarterly reports that include feedstock and process information by batch, volume of the batch, and cellulosic and non-cellulosic content of the batch, as well as the specific renewable fuel facility where the batch of biointermediate was intended to be used for the production of renewable fuel. The biointermediate producer would also be required to designate each batch that is intended to be used as a renewable fuel feedstock, so that the biointermediates batches are directly linked to the renewable fuel batches produced from that biointermediate. The biointermediate producer would also be required to report the renewable content and adjusted cellulosic content of each biointermediate batch and certify that the renewable content of each biointermediate batch met the renewable biomass requirement. We are also proposing changes to the periodic reporting requirements for renewable fuel producers that use a biointermediate to help the EPA track that biointermediates are being used appropriately. These proposed reporting requirements would help the EPA monitor compliance concerning the production and use of biointermediates by directly linking the volume of biointermediate produced by a biointermediate producer with the volume of renewable fuel produced by a renewable fuel producer.

We are also proposing modifications to the EMTS reporting requirements for producers of renewable fuel to help track and ensure that biointermediates are used appropriately. Currently, feedstocks used to produce a renewable fuel are tracked on a per-batch basis in EMTS. Due to the similarity between the ways that biointermediates would be used and existing feedstocks are already being used, we are proposing that biointermediate use also be tracked through EMTS. In addition, aligning batches of RINs generated for renewable fuel with the biointermediate batches used to produce the fuel would help the EPA monitor that volumes of biointermediates are appropriately used to generate valid RINs. Therefore, we are proposing that renewable fuel producers specify in EMTS both the amount of biointermediate feedstock used to produce each batch of fuel, as well as the party from whom the biointermediate was produced, received, purchased, or procured. This is somewhat analogous to EMTS reporting requirements for RIN-generating importers of foreign renewable fuel. For example, in order to generate RINs for a volume of renewable fuel produced at a foreign renewable fuel facility, renewable fuel importers must identify in EMTS the foreign renewable fuel facility for each batch of imported renewable fuel for which they generate RINs, among other batch requirements.

These proposed changes to EMTS, while simple in concept, nevertheless will constitute a significant modification to the coding of the existing EMTS system, which will take time to develop and test to ensure adequate functionality. Therefore, we anticipate that if we finalize the proposed biointermediate provisions, we will delay the full tracking of biointermediates in EMTS, but not the periodic reporting requirements, until January 1, 2018, so that the changes to EMTS could reasonably be developed and tested. As discussed in more detail in section III.L of this preamble, biointermediate producers and renewable fuel producers using biointermediates would be permitted to meet interim implementation requirements pending EMTS modification. Parties would still be required to submit periodic reports outside of EMTS to help the EPA monitor compliance with biointermediate requirements.

We believe that these reporting requirements and tracking in EMTS would help the EPA monitor the generation of RINs for renewable fuel produced from a biointermediate, thereby reducing the potential for fraud and enhancing the integrity of the program. We seek comment on whether we should require any additional reporting requirements from biointermediate producers or renewable fuel producers.

3. Recordkeeping Requirements

We are proposing that biointermediate producers would have essentially the same feedstock and process-related recordkeeping requirements as those already in place for renewable fuel producers. Since the biointermediate producer would be a party between suppliers of feedstocks listed in Table 1 to 40 CFR 80.1426 and the renewable fuel producer, the biointermediate producer would need to maintain records related to the purchase of feedstocks used to produce the biointermediate. Biointermediate producers would also need to maintain appropriate records that demonstrate that feedstocks meet the definition of renewable biomass. Finally, biointermediate producers would need to keep records of any calculations the biointermediate producer used to determine the renewable or cellulosic content of the biointermediate, as applicable. This information would need to be conveyed to any renewable fuel producer that uses the biointermediate as part of the required PTDs. Renewable fuel producers would need to maintain these PTDs in addition to their current recordkeeping requirements. We seek comment on whether there are any additional records that should be kept by biointermediate producers or renewable fuel producers to accommodate the proposed use of biointermediates.

G. Product Transfer Documents

In order to help provide renewable fuel producers using biointermediates the information they need to ensure the validity of RINs they generate, we are proposing PTD requirements associated with the transfer of biointermediates between the biointermediate producer and the renewable fuel producer. The biointermediate producer would be required to transfer to the renewable fuel producer a PTD along with each

shipment of biointermediate containing information related to the feedstock, volume, cellulosic and non-cellulosic content of the batch, and processes used in the production of the biointermediate. The biointermediate producer would also be required to include a certification statement regarding these details on the PTD. We are also proposing that biointermediate producers would designate clearly in the PTD what renewable fuel(s) should be produced from specific batches of biointermediate. This information would need to be conveyed on PTDs to the renewable fuel producer and should match reports submitted to the EPA by the biointermediate producer.

Additionally, to the extent that any portion of the biointermediate is not derived from renewable biomass, biointermediate producers would be required to identify the feedstock energies of the renewable and non-renewable biomass used to produce the biointermediate and the proportions of the biointermediate that could and could not be used to make renewable fuel for which RINs could be generated. If applicable, biointermediate producers would also need to convey information regarding the proportion of the biointermediate that is cellulosic material and non-cellulosic material. This breakdown would need to be transferred to the renewable fuel producer so they could properly calculate the RINs to be produced from fuel made with the biointermediate. Biointermediate producers would also need to certify to the renewable fuel producer the process used to produce the biointermediate feedstock. We seek comment on whether any additional information should be conveyed from the biointermediate producer to the renewable fuel producer through PTDs.

It should be noted that it would still be the responsibility of the renewable fuel producer to ensure that any feedstocks used to make renewable fuel, including biointermediates, meet the definition of renewable biomass, and that all processes used by the biointermediate producer in conjunction with the processes used by the renewable fuel producer fall under an EPA-approved pathway to produce renewable fuel. Thus, as discussed further in the next section, both the renewable fuel producer and the biointermediate producer may be held liable when RINs are generated for fuel that was not derived from renewable biomass, or where the biointermediate producer used processes that were inconsistent with the pathway utilized by the renewable fuel producer as the basis for RIN generation.

H. Prohibited Activities and Liability in Cases Where a Biointermediate Is Not a Valid Feedstock

We are proposing to amend the regulations to add a new prohibited activity for the production of a biointermediate from a feedstock or through a process that is not described in the producer's registration information. We are also proposing to modify the prohibited acts regulations to prohibit the use of a biointermediate by a renewable fuel producer that is not described in the producer's registration information. Renewable fuel producers are ultimately responsible for ensuring that any biointermediate is used in compliance with the regulations, similar to how they are currently responsible for using appropriate feedstocks and processes to produce renewable fuels and generate RINs. As noted above, the description of feedstocks and processes in registration materials accepted by the EPA does not represent a determination by the EPA that such feedstocks and processes are consistent with the RFS regulations; the responsibility of ensuring that they do rests on a continuing basis with the renewable fuel producer as well as any biointermediate producer.

In order to fulfill the statutory mandate that renewable fuel is produced from renewable biomass, the renewable fuel producer must be able to demonstrate that the feedstocks they are using are, or are derived from, renewable biomass and are consistent with the feedstocks permitted under the renewable fuel production pathway utilized. When a biointermediate is being used to produce renewable fuel, the renewable fuel producer may not have direct access to the information needed to make these demonstrations. Therefore we are proposing that the biointermediate producer would be required to make these demonstrations both to the EPA and to the renewable fuel producer. To ensure appropriate levels of oversight by renewable fuel producers, we do not believe that the renewable fuel producer should be held harmless in the event that the biointermediate is determined to not be derived from renewable biomass or is determined to be unauthorized under the pathway utilized by the renewable fuel producer. Therefore we are proposing that either or both the biointermediate producer and the renewable fuel producer would potentially be liable for violations involving the improper production or characterization of a biointermediate used to produce renewable fuel for which RINs were generated. This would be true both where any errors could be characterized as having been made in good faith, and in situations involving deliberate fraud.

This approach has been used extensively in other EPA fuels programs (*e.g.,* gasoline and diesel programs) where it is presumed that violations that occur at downstream locations (*e.g.,* a retail station selling gasoline) were caused by all parties that produced, distributed, or carried the fuel. In this case, if, for example, a biointermediate producer were to use feedstocks that do not meet the definition of a renewable biomass, then both the biointermediate producer and the renewable fuel producer could be liable for the violation.

We seek comment on whether the proposed approach to liability in instances where biointermediates are used is appropriate and whether the final regulations should include any additional prohibited activities or liability-related provisions.

I. Attest Engagements for Biointermediate Producers

We are proposing that biointermediate producers undergo annual attest engagements similar to current annual attest engagement requirements for renewable fuel producers. The attest engagement for biointermediate producers would consist of an outside certified public accountant or certified independent auditor following agreed upon procedures to determine whether the underlying records for the biointermediate, the reported items to the EPA, and copies of PTDs to the renewable fuel producer agree. The auditor would issue a report to the EPA as to their findings. We are also proposing a slight modification to the attest engagement for renewable fuel producers to ensure that attest auditors verify records related to the use of a biointermediate.

J. Quality Assurance Plans for Biointermediates

In 2014, the EPA finalized requirements for optional QAPs to help ensure that RINs are valid.[37] The QAP rule provides for auditing of renewable fuel production facilities by independent third-party auditors who review feedstock elements, process elements, and RIN generation elements to determine if renewable fuel production is consistent with EPA requirements. Several companies that have contacted the EPA regarding the potential use of biointermediate feedstocks have suggested that the EPA

[37] See 79 FR 42128 (July 18, 2014).

allow the use of QAPs for biointermediates to help ensure the validity of RINs produced from renewable fuels that used biointermediates as a feedstock. We believe that allowing independent third-party auditors to implement QAPs for biointermediate producers would help provide assurance to the renewable fuel producer and RIN purchasers that biointermediate producers are using appropriate feedstocks and processes consistent with EPA requirements. Therefore, we are proposing that biointermediate producers may participate in the RFS QAP with third-party auditors reviewing applicable feedstock and process related QAP elements. We are also proposing small changes to the QAP requirements for renewable fuel producers to accommodate their use of biointermediate feedstocks.

More significantly, we are proposing that in order for a renewable fuel producer to generate a Q–RIN, both the biointermediate producer and the renewable fuel producer must have in place an EPA-approved pathway-specific QAP. We believe that this is necessary to provide the level of assurance that is expected from the RFS QAP. If we allowed the producer to generate Q–RINs without the biointermediate producer's information being verified, it could undermine the level of compliance assurance provided by Q–RINs. Additionally, since the focus of the QAP system is the validity of RINs and both the biointermediate producer and the renewable fuel producer must follow approved pathway processes for RINs to be valid, it would not be appropriate to allow the generation of Q–RINs without a QAP for the biointermediate producer. We seek comment on whether this approach is appropriate and whether there are any additional QAP requirements that we should impose upon biointermediate producers or renewable fuel producers using biointermediates to maintain the high level of confidence associated with Q–RIN generation.

As discussed more thoroughly below, in the interest of accelerating the implementation of the proposed expanded program allowing use of biointermediates, we are proposing that in the interim between the effective date of the final rule and January 1, 2018, biointermediate producers and renewable fuel producers that wish to produce renewable fuel using biointermediate feedstock must have a pathway-specific QAP in place. We believe this is necessary because the tracking of biointermediates in EMTS and the association [38] of biointermediate companies with renewable producers tracked in the EPA Central Data Exchange (CDX) registration system would not be in place until January 1, 2018. After January 1, 2018, we are proposing that biointermediate and renewable fuel producers may voluntarily participate in the RFS QAP; however, both parties would still need to participate in the QAP program to generate Q–RINs. The EPA is also seeking comment on whether we should maintain the requirement that biointermediate and renewable fuel producers have a pathway-specific QAP after the interim period ends, or whether there are any specific situations in which the use of a QAP should continue to be mandatory, especially where the potential for fraud to occur may be more likely (*e.g.,* biointermediate production facilities that produce both a renewable fuel and a biointermediate).

K. Foreign Biointermediate Producer Requirements

We are proposing that foreign biointermediate producers have similar requirements as foreign renewable fuel producers as described in 40 CFR 80.1466. In general, foreign biointermediate producers would be required to comply with requirements related to inspection and audit, bonding, agent appointment for service of process, and the application of U.S. substantive and procedural laws to any civil or criminal enforcement action. These requirements would allow the EPA to monitor the producers and carry out enforcement actions should a violation occur outside the U.S.

We are also proposing that foreign biointermediate producers transfer their biointermediate only to domestic and foreign RIN-generating renewable fuel producers. This means that foreign biointermediate producers would not be allowed to transfer their biointermediate to non-RIN-generating foreign producers. This proposed limitation serves two purposes. First, RIN-generating renewable fuel producers are required to provide in EMTS the type and volume of the biointermediate used and the registration number of the biointermediate production facility. The existence of foreign biointermediate producer's information in EMTS allows the EPA to oversee all parties in the chain of RIN generation. Secondly, RIN-generating renewable fuel producers have the option to utilize the voluntary RFS QAP. The program helps ensure that RINs are properly generated through audits of renewable fuel production conducted by independent third-party auditors, and makes the RFS program more efficient for buyers of RINs. Foreign biointermediate producers would be subject to the same recordkeeping, reporting, registration, and PTD requirements as domestic biointermediate producers. We seek comment on the proposed foreign biointermediate producer requirements.

L. Interim Implementation Program

As mentioned above, some of the proposed requirements for biointermediates involve significant development of EMTS for the tracking of biointermediates and RINs generated for renewable fuel made from biointermediates. In addition, significant changes to the CDX registration system are needed to track the complex network of associations among biointermediate producers, renewable fuel producers, and, where relevant, independent third-party auditors. These changes are necessary to aid in implementing and enforcing the proposed biointermediate requirements. Additionally, by bringing biointermediates and biointermediate producers into EMTS and CDX, RFS regulated parties will be able to take full advantage of the tracking and transactional functions of the systems instead of having to track everything outside of the system.

On the other hand, the EPA does not want to delay the introduction of new renewable fuels that may help further the goals of the RFS program to significantly increase the production and use of renewable fuel as a substitute for fossil-based transportation fuel. We considered proposing a more manual tracking system, but given the significant investments already made to develop EMTS and the registration system, plus the benefits to the RFS regulated community of allowing biointermediates to be tracked with the full capabilities of EMTS and CDX, we believe it makes sense to require the tracking of biointermediate producers and biointermediates within the registration system and EMTS. Given the time needed to modify EMTS and CDX, we are proposing an interim

[38] For purposes of this preamble, ''association'' means an administrative linking of two companies in CDX and does not mean any contractual or more formal relationship. Under the QAP program, third-party auditors are required to associate with RIN generators in CDX so that RIN generators can generate verified RINs in EMTS. Under the proposed biointermediates program, biointermediate producers would need to associate in CDX with a renewable fuel producer in order for that renewable fuel producer to generate RINs. Additionally, if the biointermediate and renewable fuel producers participate in the QAP program, each party would need to associate with each other in CDX.

implementation program that would allow the use of biointermediates for renewable fuel production beginning on the effective date of final rule, with additional restrictions on the production and use of biointermediates until full tracking is available through EMTS and the CDX registration system. As discussed in section III.F.2 of this preamble, we anticipate that the necessary changes to EMTS will be completed by January 1, 2018. However, since these modifications to EMTS and CDX are significant and may take longer than the EPA anticipates, it is possible that the EPA will be forced to delay implementation of full biointermediate tracking in EMTS beyond January 1, 2018. Should this occur, the EPA would notify all parties potentially affected by this decision (both biointermediate producers and renewable fuel producers) and would continue implementing the interim requirements until the changes to EMTS are complete.

It should be noted that most of the proposed biointermediate requirements would go into effect at the start of the program and remain in place after the interim implementation period, including: Registration of biointermediate facilities, engineering review as part of registration, periodic reporting requirements outside of EMTS,[39] recordkeeping requirements, PTD requirements, and annual attest requirements. These requirements do not require significant development of new functionality in EMTS and CDX and can easily be implemented by the EPA and regulated parties since they are in general consistent with requirements already in place for renewable fuel producers.

The main difference between the interim implementation program and the fully implemented program is that for the interim program biointermediate producers and renewable fuel producers using biointermediates must have EPA-approved pathway-specific QAPs. After the interim implementation period, we propose that parties could continue to voluntarily participate in the RFS QAP. Although the RFS QAP is otherwise a strictly voluntary program, we believe it is appropriate to require the participation of biointermediate producers and renewable fuel producers during the interim implementation period for two reasons. First, we want to reduce the opportunity for parties to generate invalid RINs. By allowing additional intermediate parties to collect and process feedstocks, the complexity of the relationship between feedstock providers and renewable fuel producers can be difficult to untangle and may provide opportunity for some parties to generate invalid RINs. Since RINs generated for renewable fuel produced from biointermediates would not be fully tracked in EMTS during the interim implementation period, requiring third-party verification of the production of biointermediates would provide both the EPA and the RFS regulated parties an additional increment of assurance that biointermediates are properly produced.

Second, requiring QAPs for biointermediate producers and renewable fuel producers during the interim implementation period is appropriate since this situation differs from the normal renewable fuel production situation. The use of a biointermediate as a feedstock by a renewable fuel producer is voluntary (*i.e.,* the renewable fuel producer could use traditional feedstocks to produce renewable fuels as they have since the creation of the RFS program), and in this case we are providing new flexibility for parties to utilize biointermediates that would otherwise not be allowed under the existing regulations. We believe it is appropriate to seek the additional assurance regarding RIN validity that would be provided during the interim period by requiring QAPs for biointermediate producers and renewable fuel producers using biointermediates in exchange for the additional flexibility provided by the expanded program.

We recognize that this required QAP provision may temporarily place an additional burden on biointermediate producers and renewable fuel producers using biointermediates. However, we note that several companies that expressed interest to the EPA in producing or using biointermediates have mentioned the participation in the RFS QAP as a way to provide assurance that RINs are properly generated. We specifically seek comment on whether this interim implementation approach is appropriate, and whether any of the interim requirements (such as the mandatory use of a QAP) should be continued after the expiration of the interim period. We also seek comment on whether during the interim period there are any other measures that could be employed to provide the same type of assurance of RIN validity as the RFS QAP provides. In addition, should the EPA decide to not require the use of a QAP for all biointermediate producers and renewable fuel producers using biointermediates after the expiration of the interim period, we also seek comment on whether there are any specific situations in which the use of a QAP should continue to be mandatory, especially where the potential for fraud to occur may be more likely (*e.g.,* biointermediate production facilities that produce both a renewable fuel and a biointermediate).

[39] In other EPA fuels programs, parties submit periodic reports through CDX into a separate reporting database (primarily DCFUEL). During the interim period, biointermediate producers would be required to submit their periodic reports in this way. After EMTS or an EMTS-like system has been developed to track biointermediate production and transfers, it may no longer be necessary to submit periodic reports through DCFUEL since that information would be collected in EMTS or an EMTS-like system.

IV. Standards for Ethanol Flex Fuel

This section of the preamble discusses the EPA's proposed approach for EFF. An overview of the current regulatory provisions that apply to EFF is provided in section IV.A and an overview of the key proposed requirements that would apply to producers of EFF is provided in section IV.B. The proposed standards that would apply to EFF, EFF blendstocks, and EFF additives are discussed in section IV.C. The three different certification options for producers of EFF are discussed in section IV.D and the requirements for producers of E15 at blender pumps is discussed in section IV.E. The proposed compliance provisions that would apply to producers of EFF, including the registration, recordkeeping, reporting, PTD, sampling and testing, attest engagements, compliance dates, and EFF quality survey program, are discussed in section IV.F. An alternative approach that would formalize the current approved practices for producing EFF is discussed in section IV.G. A discussion of the EPA's statutory authority for these proposed requirements is provided in section IV.H.

A. Current EFF Regulatory Landscape

FFVs are designed to operate on E0, E85, or any level of ethanol in between, and, in order to maintain emission performance, these vehicles need the fuel to meet certain quality specifications. Our various standards for gasoline apply to any fuel sold for use in motor vehicles, which is commonly or commercially known or sold as ''gasoline.'' [40] The Fuel and Fuel Additive (F&FA) program requires that fuels the EPA has ''designated'' as motor vehicle fuels must be registered with the EPA prior to being introduced into commerce.[41] To date, the EPA has designated gasoline and highway diesel fuel as motor vehicle fuels for the purposes of the F&FA program.

[40] See 40 CFR 79.32(a).

[41] See 40 CFR 79.4(a)(1).

Producers of gasoline and highway diesel fuel must comply with the F&FA program's requirements before introducing gasoline or highway diesel fuel into commerce.[42] Currently, the EPA has registered gasoline that contains up to 15 volume percent ethanol (E15).[43] Additionally, the introduction into commerce of fuels and fuel additives that are not substantially similar to any fuel or fuel additive used in vehicle or engine emissions certification is prohibited, unless granted a waiver pursuant to CAA section 211(f)(4). Thus, registered gasoline is well controlled under our current regulations.

Gasoline-ethanol blends greater than 15 volume percent ethanol and less than 51 volume percent ethanol are relatively new to the marketplace. Fuels composed of at least 50 volume percent clear gasoline are included in the gasoline family under the F&FA program.[44] Hence, E16–50 blends are currently subject to all of the requirements that apply to gasoline, despite the fact that such blends may not be used in conventional gasoline vehicles. Ethanol blends that contain from 51 to 83 volume percent ethanol for use in FFVs have been sold for a number of years under the trade name ''E85.'' [45] Such E51–83 blends belong to the ethanol family in the F&FA program, and are not subject to our gasoline regulations.

The EPA has two sets of gasoline quality requirements: One set applies to conventional gasoline (CG) areas and the other to reformulated gasoline (RFG) areas. The RFG requirements apply in areas with the greatest air quality need and are based on compliance with an emissions model that uses a number of gasoline properties to evaluate emissions control performance.[46] Since the RFG program was finalized, changes to the EPA gasoline sulfur and benzene control requirements have largely supplanted the provisions in the complex model (a fuel component model used to determine compliance with emission performance standards) so that the RFG program is essentially a volatility control program where gasoline RVP is typically limited to about 7.0 pounds per square inch (psi).[47] The Tier 3 gasoline sulfur program requires that all gasoline (RFG and conventional) produced and imported must meet a 10 ppm annual average sulfur standard beginning January 1, 2017.[48] The gasoline benzene program requires that all gasoline meet a 0.62 volume percent annual average benzene standard.[49] Conventional gasoline is subject to either a federal 7.8 psi RVP maximum or a 9.0 psi RVP maximum depending on the climate conditions and air quality need of a given region in addition to the gasoline sulfur and benzene requirements. Some states have also adopted more stringent RVP requirements for gasoline in a federally-approved state implementation plan (SIP) where additional volatility control is needed to address local air quality problems. A statutory 1 psi RVP waiver applies to E10 in many CG areas.[50]

Under existing EPA regulations, a gasoline refiner must certify that the gasoline it produces meets the required emission performance standards by testing each batch.[51] For CG, the refiner must test each batch to demonstrate compliance with sulfur, benzene, and RVP requirements. For RFG, refiners must also sample and test for a broad range of fuel properties, but the RFG emission performance standards have largely been supplanted by other EPA fuel programs such as the gasoline sulfur and benzene programs, and the RVP largely determine compliance.[52] All gasoline is also required to be composed solely of CHONS to prevent potential fuel contaminants from disabling vehicle emissions control catalysts. The EPA has not required CHONS testing to certify compliance with EPA gasoline quality requirements because we concluded that the processes used to produce gasoline remove non-CHONS elements. Refiners produce gasoline by processing crude oil and to a more limited extent by blending in blendstocks such as butane into previously-certified gasoline at refined product terminals. Refiners that produce gasoline are required to register with the EPA, submit annual reports, designate where the gasoline they produce may be used (*e.g.,* RFG, CG 7.8 RVP areas, or CG 9.0 RVP areas) on product transfer documents (PTDs), and in the case of RFG, participate in a downstream fuel quality survey at fuel retail facilities.

E16–50 gasoline blends are currently produced for use in FFVs using blender pumps at fuel retailer facilities. The typical current practice is that a blender pump mixes gasoline (E0 or E10) and E85 parent blends at different ratios to produce various E16–50 blends. Such E16–50 blender pumps are a recent development.[53] Because the EPA currently considers E16–50 to be gasoline and blender pump operators mix E85 (a non-gasoline) with gasoline to produce E16–50, blender pump operators are gasoline refiners under our existing regulations.

Similarly, E15 is also primarily produced at blender pumps. Fuel retailers that make E15 at blender pumps using E85 as a parent blend are currently subject to all of the requirements that apply to refiners producing gasoline from crude oil, including registration, reporting, and per-batch testing. This is due to the fact that such blender pump operators are mixing non-gasoline (E85) with gasoline (E0 or E10) to produce a new finished gasoline.

The only current fuel quality requirement that applies to E85 is that it must be substantially similar (sub-sim) to the fuel used for FFV certification testing. To assure compliance with the sub-sim requirement, the EPA has required that E85 blenders can use only certified gasoline, BOBs, and DFE as E85 blendstocks, consistent with practices used in producing such blends for vehicle certification. Historically, this has not been an issue, as these were the

[42] The requirements under the F&FA program are contained in 40 CFR part 79.

[43] ''Conventional gasoline vehicle'' refers to a conventional vehicle designed to operate using gasoline. Conventional vehicles had historically been designed to operate on ethanol-gasoline blends up to 10 volume percent ethanol. In 2011, the EPA issued a partial waiver to allow 15 volume percent ethanol to be used in 2001 and later light duty motor vehicles. See 76 FR 4662 (January 26, 2011).

[44] See 40 CFR 79.56(e)(1)(i).

[45] Retailers may be moving away from the E85 trade name for E51–83 blends in part because of the wide variability in ethanol content encompassed. The Federal Trade Commission (FTC) recently finalized labeling requirements for higher level ethanol blends including E51–83. See section IV.F.8.a of this preamble for a discussion of the labeling provisions for higher-level ethanol blends.

[46] The requirements under the RFG complex emissions model are contained in 40 CFR 80.45.

[47] See the memorandum titled, ''Volatility of Reformulated Gasoline,'' available in the docket for this action.

[48] A 30 ppm average sulfur standard currently applies to all gasoline under the Tier 2 gasoline sulfur program (40 CFR 80.195). Under the final Tier 3 program, approved small refiners and small volume refineries may continue to produce gasoline meeting the Tier 2 30 ppm sulfur standard through December 31, 2019 (40 CFR 80.1603(a)). An 80 ppm refinery-gate per-gallon sulfur cap applies under both the Tier 2 and Tier 3 gasoline programs. A 95 ppm per-gallon sulfur cap applies at all facilities downstream of the refinery.

[49] See 40 CFR 80.1230.

[50] States can request that the EPA not apply the 1 psi RVP waiver to E10. The 1 psi RVP waiver for E10 does not apply in RFG areas. See CAA sections 211(h)(4) and (h)(5).

[51] The definition of a refinery and a refiner is found in 40 CFR 80.2(h) and (i), respectively.

[52] RFG refiners can still take advantage of other complex model fuel parameters to demonstrate compliance with the RFG program.

[53] Blender pumps that produce intermediate octane grades by mixing premium and regular gasolines have existed for decades. The EPA considers this to be the commingling of two compliant gasolines since the EPA currently has no in-use gasoline octane standards.

only blendstocks used when E85 was produced at refined product terminals. However, we understand that ethanol producers may also be producing E85 by blending DFE with hydrocarbon used as an ethanol denaturant. The Alcohol Tobacco Tax and Trade Bureau (TTB) specifies a range of hydrocarbons that can be used as an ethanol denaturant, including gasoline and natural gasoline.[54]

B. Key Requirements Proposed for EFF and Producers of Gasoline at Blender Pumps

The proposed standards for EFF in this proposal will address the public health and welfare effects of EFF and its impact on emissions control devices on FFVs and FFV engines while providing new flexibility. The proposed standards are patterned on the EPA's Federal gasoline quality regulations and are designed to provide an equivalent level of emissions control performance when EFF is used in FFVs compared to the use of gasoline in conventional gasoline vehicles. As discussed above, the current regulations, as they relate to the production of E10, E15, and E16–50 at retail blender pumps include blender pump operators as subject to the requirements applicable to a gasoline refiner. These requirements include: Compliance with the health effects testing for the blends produced under the F&FA program; per-batch testing to demonstrate compliance with the sulfur, benzene, and RVP standards for gasoline; and registration, reporting, and recordkeeping requirements associated with demonstrating compliance.

In the Tier 3 proposal, we requested comment on several approaches for specifying standards that apply to E16–50 blends.[55] Under one approach, we sought comment on the need to have E16–50 (and any other fuel blend that is at least 50 volume percent gasoline) comply with the applicable gasoline requirements under our regulations and the need for regulatory amendments to clarify that these requirements apply. This approach would likely make the production of such blends at blender pumps impractical since blender pump-refiners would be subject to all of the requirements applicable to gasoline refiners, including registration under the F&FA program and per-batch testing. Under another approach, we sought comment on setting new standards that would apply to all EFF blends, including E16–50.[56] This approach would be consistent with the current limitation that E16–83 may only be used in FFVs and would facilitate the production of E16–50 at blender pumps.

A number of comments on the Tier 3 proposal were in support of the EPA setting new standards for all EFF used in FFVs that would provide an equivalent level of protection to gasoline used in conventional gasoline vehicles and allow E16–50 to be made at blender pumps. However, the American Petroleum Institute (API) and the American Fuel and Petrochemical Manufacturers (AFPM) stated that the EPA should continue to treat E16–50 as gasoline to ensure an appropriate level of protection regarding the environmental quality of these blends.

In this action, we are proposing to adopt provisions to control the quality of all EFF blends, including E16–50. This proposal would make minor amendments to the regulations so that gasoline-ethanol blends of E50 and below that may not be used in conventional gasoline vehicles (currently E16–50)[57] are treated in a similar way to other EFF blends that may only be used in FFVs (*e.g.,* E51–83). Doing so would align our regulations with E16–50 use restrictions by no longer treating E16–50 as gasoline when it cannot legally be used in a conventional gasoline vehicle. We believe that the quality of EFF can be best assured by regulating in the same manner all gasoline-ethanol blends that can only be used in FFVs. If in the future, if a fuel manufacturer were to demonstrate that an ethanol blend greater than E15 is sub-sim to gasoline, or obtain a waiver under CAA section 211(f) to allow its use in conventional gasoline vehicles and engines, such a gasoline-ethanol blend would become subject to all of the requirements that apply to gasoline, including registration under the F&FA program.

We are also proposing fuel quality requirements for all EFF that would provide an equivalent level of emissions control when used in FFVs compared to the use of gasoline in conventional gasoline vehicles. As discussed in section IV.C of this preamble, the proposed sulfur and benzene standards and elemental composition requirements for EFF directly parallel those for gasoline since levels of these fuel parameters have the same impact on the emissions performance for FFV and conventional gasoline vehicles. The proposed RVP requirements for EFF recognize the greater capability of the evaporative emissions control equipment on FFVs compared to conventional gasoline vehicles. As a result of more stringent vehicle certification testing requirements, FFVs can deliver the same level of evaporative emissions control as conventional gasoline vehicles when operated on a fuel that is 1 psi higher than gasoline. We are proposing RVP standards for EFF produced upstream of blender pumps that parallel those for gasoline without the 1 psi waiver for E10 that applies in certain areas. When blended at retail, however, the RVP of the EFF would be expected to rise. The proposed RVP standards for EFF produced upstream of retail and existing RVP standards for gasoline would ensure that EFF produced at blender pumps using EFF and gasoline is expected to be less than 1 psi higher. We believe that the proposed standards for the EFF and gasoline parent blends used at blender pumps would ensure an equivalent level of evaporative emissions control for FFVs operated on EFF to that for conventional gasoline vehicles operated on gasoline (without the 1 psi waiver for E10) without necessitating the implementation of specific RVP standards for EFF produced at blender pumps.[58]

The proposed compliance provisions contain two primary elements: (1) Recordkeeping and reporting; and (2) In-use verification through a third-party survey.[59] We believe that in-use verification is critical feature in the proposed EFF compliance provisions as a check against potential fraud and abuse. This proposal includes streamlined compliance provisions for producers of E16–50 EFF blends and E15 gasoline at blender pumps based on the use of specified parent blends and

[54] The TTB requirements for ethanol denaturants are contained in 27 CFR part 21. Natural gasoline is a byproduct of natural gas production, as well as a gasoline blendstock produced at crude oil refineries.

[55] See 78 FR 29937–29938 (May 21, 2013).

[56] Under this proposed approach, EFF would be defined as a gasoline-ethanol blend that has an ethanol content greater than that covered under a waiver obtained from the Administrator pursuant to the requirements of CAA section 211(f)(4) to allow its use in conventional gasoline vehicles, contains no more than 83 volume percent ethanol, and is suitable for use in FFVs or flex-fuel engines.

[57] Should an ethanol blend above E15 be granted a waiver in the future to allow its use in conventional gasoline vehicles, such a blend (*e.g.,* E20) would be grouped with other blends that can be used in conventional gasoline vehicles (*e.g.,* E10 and E15), and would subject to the gasoline quality requirements rather than those for EFF.

[58] For example: In conventional gasoline (CG) areas where a 9.0 psi RVP standard applies to gasoline, EFF produced upstream of the blender pump would also be subject to a 9.0 psi RVP standard. This proposed RVP standard for EFF and other proposed requirements for blender pump operators would ensure that the RVP of EFF made at blender pumps would expected to be less than 10 psi in 9.0 psi CG areas.

[59] The proposed EFF quality survey requirements are discussed in section IV.F.9 of this preamble.

participation in a fuel quality survey.[60] The proposed compliance provisions would represent a substantial reduction in the burden of compliance compared to the current requirements that apply to these fuels while continuing to ensure an equivalent level of emissions control performance to that under the current requirements.

Since the EPA has not yet designated fuels other than gasoline and highway diesel fuel as motor vehicle fuel, fuels such as E85 (E51–83) are not yet subject to the EPA's F&FA regulations. By regulating all E16–83 ethanol blends together in a similar fashion and clarifying that E16–50 blends are not required to meet the requirements for gasoline under this proposal, we are resolving the ambiguity of E16–50 blends with respect to their treatment under both our F&FA program and in-use fuel quality regulations. We are exempting E16–50 blends that are used in FFVs from the designation for gasoline and we are not designating EFF blends (E16–83) as motor vehicle fuels under the F&FA program in this proposal.[61] The EFF blends would only become subject to F&FA regulations at such point in the future when the EPA takes action to designate them as motor vehicle fuels. Under this proposal, motor-vehicle gasoline-ethanol blends that have been registered by the EPA for use in conventional gasoline vehicles such as E15 would continue to be subject to our existing F&FA regulations. If in the future, a blend such as E20 that would be subject to the proposed requirements for EFF under this proposal were to be granted a waiver under CAA section 211(f) to allow its use in conventional gasoline vehicles, it would no longer be subject to the requirements for EFF and would become subject to all of the requirements applicable to gasoline, including registration under the F&FA program.

The only current EPA fuel quality requirement for E85 is that it must be substantially similar (sub-sim) to vehicle certification fuel.[62] E85 has historically been produced by blending certified gasoline or BOBs with DFE. When E85 is made solely from EPA-compliant gasoline, BOBs, and DFE, the EPA can be assured that the fuel is in compliance with the requirement that in-use E85 must be sub-sim to FFV certification fuel. Under this circumstance, the EPA is also assured that E85 fuel quality meets the same sulfur, benzene, and RVP requirements that apply to gasoline and is suitable to maintain the in-use emissions performance of FFVs.

A number of stakeholders have requested that the EPA promulgate regulations to allow the use of natural gasoline as a blendstock to produce EFF due to its lower cost compared to gasoline. Natural gasoline is an inexpensive and increasingly plentiful byproduct of the ongoing expansion in domestic natural gas and crude oil production, and its use to make EFF would decrease EFF production costs. If this savings were passed along to consumers, it may help increase demand for EFF. Due to the relative high volatility of natural gasoline and the low volatility of ethanol, the use of natural gasoline to make E85 could also facilitate the manufacture of E85 in the upper end of its allowable range in ethanol content (*i.e.,* 70 to 83 volume percent ethanol) while maintaining compliance with ASTM minimum volatility specifications.[63] Hence, the use of natural gasoline as an EFF blendstock could increase not only the demand for EFF in FFVs, but also the use of EFF with higher-level ethanol concentrations.

The current industry consensus-based controls on the quality of natural gasoline for use as an EFF blendstock[64] are not adequate to ensure the emissions control performance of FFVs.[65] Hence, there is currently no way that E85 blenders can use natural gasoline as a blendstock without potentially running afoul of the current sub-sim requirement for E85. Natural gasoline can have high sulfur and benzene content, potentially resulting in high levels of these harmful components in EFF. We believe that if natural gasoline used to produce EFF contains chemical elements other than CHONS (*e.g.,* metals and salts), either naturally or through addition, it could also quickly destroy the effectiveness of FFV emissions control catalysts, which could lead to a substantial increase in emissions from FFVs. Although the high RVP of natural gasoline can be beneficial in producing EFF that meets minimum volatility requirements, the use of too much natural gasoline as an EFF blendstock can also result in EFF that exceeds the maximum RVP of fuels suitable for use in FFVs, resulting in diminished evaporative emissions control performance of FFVs. Thus, significant concern exists about the potential increase in FFV emissions that might result from the use of natural gasoline of uncontrolled quality as an EFF blendstock. Therefore, we believe that it is important to hold EFF to standards that provide an equivalent level of environmental protection as the current standards for gasoline.

This proposal includes standards and compliance provisions that would allow the use of natural gasoline as a blendstock to produce EFF while providing an equivalent level of environmental performance to that for gasoline. Under this proposal, there would be two classes of natural gasoline that could be used to produce EFF: Certified natural gasoline EFF blendstock and uncertified natural gasoline EFF blendstock. Certified natural gasoline EFF blendstock would be certified by its producer as being compliant with standards for sulfur, benzene, and CHONS.[66] EFF producers that use certified natural gasoline EFF blendstock would have more streamlined requirements compared to producers that use uncertified natural gasoline EFF blendstock with respect to demonstrating compliance with the proposed sulfur, benzene, and CHONS standards. EFF producers that use uncertified natural gasoline EFF blendstock would have more flexibility in the natural gasoline that could be used as an EFF blendstock but would have additional requirements to demonstrate compliance with the proposed sulfur, benzene, and CHONS standards.

The proposed requirements are designed to assure that EFF produced with natural gasoline will meet the sub-sim requirements, protect emissions control systems on FFVs, and assure that FFVs that use EFF achieve the same or better emissions control performance as conventional gasoline vehicles. Alternatively, we are requesting

[60] E15 blender pump-refiners are currently already required to participate in an E15 quality survey pursuant to 40 CFR 80.1502.

[61] See the proposed revisions to 40 CFR 70.51 regarding the requirements for motor vehicle gasoline under the F&FA program.

[62] CAA section 211(f) requires that all fuels and fuel additives introduced into commerce must be substantially similar to the fuel used to certify vehicles. Vehicle certification fuel must meet the EPA specifications for use during vehicle emissions testing to demonstrate compliance with vehicle emissions standards.

[63] ASTM D5798–14 sets minimum volatility specifications for E85 to ensure startability and drivability. The low volatility of ethanol makes it difficult for high level ethanol blends to meet the minimum RVP specification using gasoline and BOBs. ASTM allows the ethanol concentration of E85 to be as low as 51 volume percent to allow sufficient hydrocarbon blendstocks to be used to facilitate compliance with the minimum volatility specifications.

[64] ASTM D8011–16, ''Standard Specification for Natural Gasoline as a Blendstock in Ethanol Fuel Blends or as a Denaturant for Fuel Ethanol.''

[65] See section IV.C.7 in this proposal for a discussion of the proposed controls on natural gasoline EFF blendstock and the current industry consensus controls on natural gasoline used as an E51–83 blendstock.

[66] Maximum T90 distillation point, final boiling point, and RVP standards would also apply.

comment on formalizing the current approved practice that would require EFF to be produced only with EPA-compliant gasoline, BOBs, and DFE. This would be a much simpler program to implement and enforce, but would preclude the use of natural gasoline as an EFF blendstock.

This proposal includes three options that EFF producers could use to demonstrate compliance with the proposed standards, as discussed in the following sections. The EFF full-refiner and EFF bulk blender-refiner certification options are intended for EFF producers upstream of retail or wholesale purchaser consumer (WPC) facilities (*e.g.,* petroleum terminals or ethanol plants).[67] The EFF blender pump-refiner option is intended for producers of EFF at retail or WPC facilities using a blender pump. This proposal also includes streamlined provisions for producers of gasoline at blender pumps. We are soliciting comments on all aspects of this proposal, as well as alternative requirements that would address the public health and welfare effects of EFF and its impacts on emissions control devices.

This proposal would provide substantial additional flexibility for EFF producers that accommodate current market realities while ensuring that EFF used in FFVs is of sufficient quality to control pollution. The regulatory burden for the EFF producers who choose to take advantage of these flexibilities would be modest in comparison to the economic benefit realized by taking advantage of the flexibility, and largely consistent with current industry practices.[68] In addition, the increased flexibility to produce EFF that would be provided by this rule, could result in the increased use of ethanol in motor fuels, thereby furthering the goals for increased use of renewable fuels under the RFS program. By facilitating the use of plentiful and inexpensive domestic natural gasoline in EFF, this rule, when finalized, could also result in reduced fuel costs to consumers and improved energy security. Absent the amendments contained in this proposal, the EPA would have to rely on the existing regulatory requirements to prevent a potentially substantial increase in vehicle emissions from the use of EFF that failed to meet the fuel quality standards necessary for vehicles to maintain proper emission performance. Doing so would not provide as robust and transparent a level of environmental and emissions control protection as the requirements in this proposal and could be disruptive to the production of higher-level ethanol blends. In addition to ensuring the environmental performance of EFF used in FFVs, the provisions in this proposal could prevent added costs to FFV owners who might otherwise face premature repairs or replacement of emissions control equipment (*e.g.,* vehicle catalyst) from the use of poor quality fuel.

1. EFF Full-Refiner Option

Under the first option for producing EFF (the ''EFF full-refiner option''), uncertified natural gasoline EFF blendstock could be used to produce EFF provided that each batch is sampled and tested to demonstrate compliance with sulfur, benzene, and RVP standards similar to the requirements for a gasoline refiner. EFF full-refiners could also use certified gasoline, BOBs, certified natural gasoline EFF blendstock, DFE, and undenatured ethanol as EFF blendstocks.[69]

Under the EFF full-refiner option, uncertified natural gasoline EFF blendstock of relatively higher sulfur and benzene content compared to certified natural gasoline EFF blendstock could be used to produce EFF as long as the potential impact on the sulfur and benzene levels in the finished EFF was mitigated by the use of lower sulfur/benzene DFE or undenatured ethanol. Ethanol producers have stated that allowing for such ''ethanol dilution'' would be important to broaden the potential pool of natural gasoline that could be used as EFF blendstock. Similar to the requirements for gasoline refiners, we are proposing that EFF full-refiners would be subject to a 0.62 volume percent annual average benzene standard, a 10 ppm annual average sulfur standard, an 80 ppm refinery gate per-gallon sulfur cap for the EFF they produce, and that the EFF they produce must be comprised solely of CHONS. Similar to the sulfur and benzene standards for gasoline refiners, compliance with the average sulfur and benzene standards for EFF produced or imported under the full-refiner option would be evaluated annually on an EFF refinery-by-refinery basis. However, we are not proposing to include EFF sulfur or benzene credit banking and trading (BT) provisions because we do not believe that such provisions are needed to mitigate the burden of compliance as was the case under the EPA's gasoline sulfur and benzene programs.

We are proposing that EFF produced by EFF full-refiners and EFF bulk blender-refiners and EFF sold at retail without further blending at a blender pump would be subject to a 9.0 psi RVP standard in CG areas where gasoline is subject to a 9.0 psi RVP standard, a 7.8 psi RVP standard in conventional gasoline areas where gasoline is subject to a 7.8 psi RVP standard, and a 7.0 psi RVP standard in reformulated gasoline (RFG) areas.[70] Alternatively, for all conventional gasoline areas we are also requesting comment on setting a uniform 9.0 psi RVP standard for EFF produced by full-refiners and EFF bulk blender-refiners. As discussed in section IV.C.3 of this preamble, these proposed EFF RVP requirements are necessary to ensure that the RVP of EFF blends produced at blender pumps does not exceed the evaporative emissions control capabilities of FFVs.[71]

We expect that producers of EFF would only take on the additional compliance burden under the EFF full-refiner option to the extent that the proposed flexibility to use uncertified natural gasoline EFF blendstock would be economically advantageous. Producers that do not wish to take on the additional burden could use the streamlined compliance provisions under the EFF bulk blender-refiner option. We anticipate that some ethanol producers and perhaps some crude oil refineries may use the EFF full-refiner option.

Ethanol producers have stated that the proposed per-batch testing requirement is not consistent with the current practice of producing E85 by in-line blending as the fuel is dispensed into a tank truck for delivery downstream. Therefore, we are also requesting comment on alternatives to in-tank testing of each batch of finished EFF to streamline the compliance demonstration process. To demonstrate that EFF made with natural gasoline contains no non-CHONS elements, EFF full-refiners would be required to maintain records to document that the natural gasoline was sourced from a

[67] Bulk blenders create finished fuel by blending different fuel components just prior to when the fuel ''breaks bulk'' at terminals as is dispensed into a tank truck for delivery to fuel retail.

[68] Additional registration, testing, recordkeeping, and reporting requirements would apply to certain parties.

[69] In order to use undenatured ethanol as a blendstock, the EFF full-refiner would be required to be an ethanol producer.

[70] Requiring EFF to meet a 7.0 RVP standard in RFG areas should provide the same level of evaporative emissions control as that provided by compliance with the RFG complex emissions model.

[71] These proposed RVP standards for EFF produced upstream of blender pumps and other proposed requirements for blender pump-refiners would ensure that the RVP of EFF made at blender pumps is expected to be less than 10 psi in 9 psi CG areas, less than 8.8 psi in 7.8 CG areas, and less than 8.0 psi in RFG areas.

natural gas processing facility or petroleum refinery. EFF full-refiners would be subject to registration, recordkeeping, reporting, and PTD requirements similar to those for a gasoline refiner. We are also requesting comment on whether EFF full-refiners should be required to participate in the proposed EFF quality survey.

2. EFF Bulk Blender-Refiner Option

The EFF full-refiner option would provide parties with the most blending flexibility, in exchange for taking on the added testing burden to demonstrate compliance. We anticipate that the majority of EFF would continue to be made by bulk blenders at petroleum terminals and ethanol plants where the per-batch testing requirement under the full-refiner option may not be practicable. Therefore, this proposal contains a second option for streamlined production of EFF (the ''EFF bulk blender-refiner option'') for producers that only use blend components that have been certified upstream as meeting the applicable sulfur, benzene, and CHONS requirements. The standards and compliance demonstration requirements under this option are similar to those that apply to oxygenate blenders under the EPA's gasoline quality requirements.[72] EFF bulk blender-refiners could use only certified natural gasoline EFF blendstock as well as certified gasoline, BOBs, and DFE that have been certified upstream for compliance with sulfur, benzene, and CHONS specifications.[73] We anticipate that all terminals and most ethanol productions plants would use the EFF bulk blender-refiner option to demonstrate that the EFF they produce is in compliance with the proposed requirements.[74] Because of the reduced ability for EFF produced by EFF bulk blender-refiners to be high in sulfur, benzene, or non-CHONS, there would be reduced requirements for EFF bulk blender-refiners to demonstrate compliance with the proposed sulfur, benzene, and CHONS requirements. The proposed 10 ppm annual average sulfur standard, 0.62 volume percent annual average benzene standard, and CHONS requirement would still apply to EFF bulk blender-refiners. However, EFF bulk blender-refiners could demonstrate compliance with these standards and would be excused from most if not all of the per-batch sampling and testing requirements that apply under the EFF full-refiner option by maintaining PTDs to demonstrate that they used only approved EFF blendstocks and by participating in the proposed EFF quality survey. In parallel with the EPA's gasoline sulfur program, a 95 ppm per-gallon sulfur cap would also apply to EFF bulk blender-refiners.

We are also proposing that EFF bulk blender-refiners would be subject to the same RVP specifications proposed for EFF full-refiners. If EFF bulk blender-refiners limited the blendstocks they use to DFE and certified gasoline or BOBs that do not take advantage of the 1 psi waiver for E10, the EFF RVP blending characteristics would ensure compliance with the proposed RVP specifications for EFF. Therefore, we are proposing that EFF bulk blender-refiners that use only DFE and certified gasoline or BOBs that do not take advantage of the 1 psi RVP waiver for E10 could demonstrate compliance with the proposed RVP requirements for EFF simply by keeping records of the blendstocks they used and participating in the proposed EFF quality survey. Thus, such EFF bulk blender-refiners would not be required to conduct RVP testing on the EFF they produce.

The relatively higher volatility of certified gasoline or BOBs that take advantage of the 1 psi waiver for E10, and/or certified natural gasoline EFF blendstock means that EFF blends made using these blendstocks could potentially result in the finished EFF exceeding the proposed RVP specifications. Therefore, when EFF bulk blender-refiners use certified gasoline or BOBs that take advantage of the 1 psi waiver for E10, and/or certified natural gasoline EFF blendstock, there would be additional requirements to demonstrate compliance with the proposed RVP standards for EFF. EFF bulk blender-refiners that use these blendstocks could demonstrate compliance with the proposed RVP requirements through per-batch testing. However, since RVP testing of the small tank truck-sized batches of EFF that we expect EFF bulk blender-refiners would produce may be impractical, we are proposing that an RVP compliance tool could be used in lieu of per-batch testing to demonstrate compliance with the proposed RVP requirements by EFF bulk blender-refiners that use gasoline or BOBs that take advantage of the 1 psi waiver and/or certified natural gasoline EFF blendstock to produce EFF.[75] The methods that EFF bulk blender-refiners may use to demonstrate compliance with the proposed RVP requirements for EFF are summarized in Table IV.B.2–1 below.

TABLE IV.B.2–1—METHODS AVAILABLE TO EFF BULK BLENDER-REFINERS TO DEMONSTRATE COMPLIANCE WITH THE PROPOSED EFF REQUIREMENTS

Hydrocarbon blendstocks	Compliance demonstration method		
	Blendstock PTDs	Compliance tool	Test
—Gasoline & BOBs that *do not* take advantage of the E10 1 psi waiver	Yes	Yes	Yes.
—Gasoline & BOBs that *do* take advantage of the E10 1 psi RVP waiver	No	Yes	Yes.
—Certified natural gasoline EFF blendstock.			

[72] In producing finished gasoline, gasoline oxygenate blenders must use oxygenates and BOBs that have been certified by their respective producers as being compliant with applicable sulfur and benzene standards, and CHONS requirements. The benzene content and CHONS compliance of the finished gasoline produced by oxygenate blenders is governed by the blend components used. Hence, oxygenate blenders are deemed to be in compliance with gasoline benzene and CHONS requirements if they use only approved blends components. There is the potential for sulfur addition from contamination during distribution and the use of sulfur containing additives downstream of the gasoline refinery. Therefore, gasoline oxygenate blenders and other parties in the downstream gasoline distribution system are subject to a downstream sulfur standard that accommodates this potential increase in fuel sulfur downstream of the refinery during distribution. The BOBs used by gasoline oxygenate blenders are formulated to assure compliance with the applicable RVP requirements when blended at the approved blend ratio with ethanol. Hence, oxygenate blenders are not required to conduct sampling and testing to demonstrate compliance with gasoline RVP requirements if they are using only the approved blend components.

[73] Ethanol producers could also use undenatured ethanol as an EFF blendstock.

[74] Crude oil refineries have a facility that acts as a terminal for the purposes of distributing finished fuels. We expect that most such crude oil refiners could also use the EFF bulk blender-refiner option for the EFF they produce.

[75] The RVP compliance tool would use information on the RVP of the blendstocks used and the blend ratios to produce EFF to calculate the RVP of the finished blend. See section IV.F.3 of this preamble.

We are also proposing registration, recordkeeping, reporting, and PTD language requirements for EFF bulk blender-refiners. To ensure compliance, the producers of certified natural gasoline used by EFF bulk blender-refiners would be required to demonstrate that their product is compliant with EPA fuel quality requirements. EFF bulk blender-refiners would rely on the PTDs from the producers of the blendstocks they use to produce EFF to demonstrate compliance with the proposed sulfur, benzene, and CHONS requirements, rather than per-batch testing. We are proposing new registration, reporting, sampling, testing, and PTD requirements for producers of certified natural gasoline EFF blendstock to demonstrate that their product meets the following proposed standards: 10 ppm per-gallon sulfur cap, 0.62 volume percent benzene cap, 275 °F T90 distillation cap, 375 °F final boiling point cap, and 15 psi RVP cap. These sulfur and benzene standards for certified natural gasoline EFF blendstock are necessary to ensure that finished EFF has comparable levels of these fuel parameters to the levels present in gasoline when the potential dilution of these fuel parameters by ethanol cannot be evaluated as under the EFF full-refiner option. The T90 and final boiling point specifications would ensure that an uncharacteristic amount of higher boiling fraction hydrocarbons are not present. The RVP of EFF made with certified natural gasoline EFF blendstock would be controlled by the maximum RVP specifications for EFF discussed above. The proposed 15 psi RVP cap for certified natural gasoline EFF blendstock would help to ensure that an inappropriately high concentration of higher boiling compounds that are not typically native to natural gasoline are not present in significant quantities.

It is possible that a significant volume of natural gasoline that meets the proposed specifications for certified natural gasoline EFF blendstock without further processing could be segregated from the broader natural gasoline pool. Although there would be additional costs in segregating such naturally ''sweet'' natural gasoline from the general natural gasoline pool for use as certified natural gasoline EFF blendstock, such segregation costs would likely be lower than the additional processing costs to reduce the sulfur and benzene content of natural gasoline from the general natural gasoline pool to meet the proposed specifications. Therefore, segregation of such naturally sweet natural gasoline may be the initial means used to produce compliant certified natural gasoline EFF blendstock. Gasoline refiners would also find natural gasoline meeting the proposed standards for certified natural gasoline EFF blendstock a desirable gasoline blendstock.[76] The additional processing costs to produce certified natural gasoline EFF blendstock meeting the proposed specifications are estimated to be the same or less than the cost to gasoline refiners to meet the applicable sulfur and benzene standards for gasoline. We expect that there would be no additional processing costs associated with natural gasoline meeting the proposed maximum RVP specification since we believe that the proposed 15 psi RVP cap is consistent with existing industry practice. The proposed T90 and final boiling specifications are consistent with the more stringent industry specifications.[77] There would be additional costs in transporting certified natural gasoline EFF blendstock to EFF bulk blender-refiners.

The use of certified natural gasoline EFF blendstock to produce EFF would be voluntary. We expect that producers of certified natural gasoline and EFF bulk blender-refiners would only take on the additional costs to the extent that the proposed flexibility to use certified natural gasoline EFF blendstock to produce EFF would be economically advantageous. However, we expect that the cost savings from the use of certified natural gasoline EFF blendstock meeting the proposed standards compared to the use of gasoline or BOBs would far outweigh the costs of providing natural gasoline that meets the proposed specifications. EFF bulk blender-refiners that do not wish to take advantage of the proposed flexibility to use certified natural gasoline EFF blendstock could continue to blend EFF using gasoline, BOBs, and DFE as current E85 blenders do.

3. EFF Blender Pump-Refiner Option

Compliance with the existing per-batch testing requirements in a retail setting is impractical because each vehicle fill-up would be considered a batch. Therefore, this proposal also includes a third option for the streamlined production of EFF by EFF blender pump-refiners at fuel retail and WPC facilities. The proposed EFF blender pump-refiner option does not have a parallel under current EPA fuels regulations. Historically, gasoline retailers have not produced or blended fuel, but only received certified batches of gasoline of like ethanol content (*e.g.,* E0, E10, or E15) for delivery into segregated storage tanks. This commingling of certified gasoline did not require any further demonstration of compliance beyond maintaining product transfer documents. Gasoline retailers have produced mid-grade octane gasoline by mixing regular and premium grades at the pump for decades. However, this is commingling two previously certified gasolines and mixing of two previously certified gasoline would be expected to always result in a compliant mixture. The proposed blender pump-refiner provisions, in combination with the proposed provisions to regulate E16–50 with E51–83 rather than continuing to treat E16–50 as gasoline, would allow EFF blender pump-refiners to continue to operate with minimal additional burden.

To ensure proper fuel quality without placing unworkable testing requirements on each batch produced by a blender pump, we are proposing to limit the parent blends that can be used at blender pumps to produce EFF blends to compliant gasoline (E0, E10 with or without the 1 psi waiver, and E15) and EFF that satisfies the proposed fuel quality requirements.[78] The proposed 10 ppm annual average sulfur standard, 0.62 volume percent annual average benzene standard, and CHONS requirement for EFF would apply to EFF blender pump-refiners. However, EFF blender pump-refiners could demonstrate compliance with these requirements simply by maintaining PTDs to demonstrate that they used only approved EFF parent blends and by participating in the proposed EFF quality survey.[79] Since the parent blends used by EFF blender pump-refiners would be required to be compliant with the applicable sulfur, benzene, and CHONS requirements, the linear blending characteristics of these fuel parameters would ensure that the resulting intermediate blends are also compliant.[80] In parallel with the EPA's

[76] Refiners that use certified natural gasoline EFF blendstock to produce gasoline would be subject to all of the requirements applicable to a gasoline refiner, including per-batch testing.

[77] See section IV.C.7 of this preamble for a discussion of the proposed controls on natural gasoline EFF blendstock and the current industry consensus controls on natural gasoline used as an E51–83 blendstock.

[78] We are also seeking comment on allowing DFE to be used as a parent blend at blender pumps.

[79] Dedicated EFF dispensers (*e.g.,* conventional E85 dispensers) would also would be required to participate in the proposed EFF quality survey.

[80] Parent blends used at blender pumps would also be required to be compliant with the applicable RVP requirements.

gasoline sulfur program, a 95 ppm per-gallon sulfur cap would also apply to EFF blender pump-refiners.

Consistent with the gasoline volatility program, EFF parent blends at blender pumps and EFF at dedicated EFF dispensers would be required to be compliant with the proposed RVP requirements annually from June 1 through September 15 of each year. Also consistent with the gasoline volatility program, we are proposing a May 1 through September 15 RVP compliance period for all upstream parties to aid in the seasonal transition to RVP compliant EFF at retail facilities. EFF blender pump-refiners and operators of dedicated EFF dispensers would primarily rely on PTDs and participation in the proposed EFF quality survey to demonstrate compliance with the proposed RVP requirements. However, such retailers would also need to manage their EFF fuel deliveries to ensure that wintertime EFF that is not subject to the proposed RVP requirements is turned over to summertime RVP-compliant EFF by the proposed June 1 compliance date.[81] We are requesting comment on whether the proposed May 1 RVP compliance date for EFF upstream of retail and WPC facilities provides sufficient opportunity for EFF retail and WPC tank turnover as is the case for the seasonal tank turnover of gasoline retail and WPC tanks.

We believe that the RVP requirements on the parent blends used at blender pumps would provide effective control of the RVP of EFF produced at blender pumps. This is because the certification testing requirements for FFVs result in FFVs being equipped with evaporative emissions control equipment that is sized to control emissions when a 10 psi fuel is used. Conventional gasoline vehicles have evaporative emissions control equipment that is sized to control emissions from a 9.0 psi fuel. The proposed parent blend requirements for blender pump-refiners would ensure that the RVP of EFF blends made at blender pumps is expected to be less than 10 psi. This is for the worst case situation in CG areas where a 9.0 psi gasoline standard and the 1 psi waiver for E10 applies. In other areas with lower gasoline volatility requirements the RVP of EFF made at blender pumps would be correspondingly lower. Therefore, we believe that setting an RVP standard for E16–50 produced at blender pumps would not be necessary to prevent an increase in evaporative emissions from FFVs.[82] The EPA may reevaluate the need to implement additional controls on the RVP of E16–50 blends produced at blender pumps in a later action if testing of such blends indicates that additional controls are needed. We request comment on whether such additional controls are needed at this time.[83] The proposed requirements for parent blends used at blender pumps and the expected maximum RVP of the EFF produced at blender pumps that would result from these requirements are summarized in Table IV.B.3–1 below.

TABLE IV.B.3–1—PROPOSED BLENDER PUMP PARENT BLEND REQUIREMENTS AND EXPECTED MAXIMUM RVP OF EFF BLENDS PRODUCED AT BLENDER PUMPS

Area	Potential gasoline parent blends (maximum RVP)	EFF parent blend (maximum RVP standard for EFF full-refiners and EFF bulk blender-refiners) *	Expected maximum RVP of EFF blends made at blender pump **
9.0 RVP CG Area with 1 psi E10 Waiver	10.0 psi E10 9.0 psi E0 9.0 psi E15	9.0 psi EFF	10.0 psi
9.0 RVP CG Area without 1 psi E10 Waiver	9.0 psi E10 9.0 psi E0 9.0 psi E15	9.0 psi EFF	10.0 psi
7.8 RVP CG Area with 1 psi E10 Waiver	8.8 psi E10 7.8 psi E0 7.8 psi E15	7.8 psi EFF	8.8 psi
7.8 RVP CG Area without 1 psi E10 Waiver	7.8 psi E10 7.8 psi E0 7.8 psi E15	7.8 psi EFF	8.8 psi
RFG Area	7.0 psi E10 7.0 psi E0 7.0 psi E15	7.0 psi EFF	8.0 psi

* These maximum RVP standards would apply to EFF sold from dedicated EFF dispensers as well as to EFF parent blends at blender pumps.

4. Requirements for Gasoline Blender Pump-Refiners

Under the current regulations, fuel retailers that produce E10 or E15 at blender pumps would be subject to the gasoline refiner provisions that require per-batch sulfur, benzene, and RVP testing.[84] This proposal includes provisions that would allow gasoline blender pump-refiners that produce E15 to demonstrate compliance with the requirements for gasoline refiners from September 16 through May 31 by using only approved parent blends, analogous to those proposed for EFF produced at blender pumps. We are also proposing provisions that could be used by blender pump-refiners that produce E15 from June 1 through September 15 in some circumstance. We are also requesting comment on similar provisions that might be used to regulate blender pumps that produce E10.

5. Requirements for Other Parties in the EFF Distribution System

All parties in the EFF distribution chain downstream of EFF full-refiners and EFF bulk blender-refiners and upstream of EFF blender pump-refiners would be subject to the proposed sulfur, benzene, RVP, and CHONS

[81] This is analogous to the management of gasoline deliveries by gasoline retailers to facilitate compliance with the seasonal RVP requirements for gasoline.

[82] Although EFF blends made at blender pumps would not be subject to a specific RVP standard, the parent blends used at blender pumps, including the EFF RVP parent blend, would be subject to the applicable RVP standard.

[83] See section IV.C.3 of this preamble for additional discussion on the proposed RVP provisions for EFF.

[84] RVP testing would apply from June 1 through September 15.

requirements. Compliance with these standards could be demonstrated by these parties by maintaining records on the EFF batches they handle.

C. Standards for Ethanol Flex Fuel

The goal of these proposed quality standards for EFF is to ensure that FFVs provide the same level of emissions control performance as conventional gasoline vehicles. Since FFVs are equipped with the same catalysts and emissions control systems to control emissions as are conventional gasoline vehicles, FFV catalyst efficiency and emission control performance is subject to the same deleterious effects from fuel sulfur and atypical (non-CHONS) elements. The potential for benzene emissions from FFVs also correlates to the benzene content of the fuel used just as for conventional gasoline vehicles. The maximum RVP of fuels used in FFVs also must not exceed the capacity of the vehicle evaporative emissions control system, as it could result in uncontrolled emissions of volatile organic compounds (VOCs).

Similar to the gasoline sulfur program, the proposed standards that would apply to various parties in the EFF production and distribution system, and the means to demonstrate compliance with these standards would vary depending on their ability to affect EFF quality. This proposal contains three options under which an EFF producer can certify that their product is compliant with the applicable standards: The full-refiner option, the bulk blender-refiner option, and the blender pump-refiner option.[85] A detailed discussion of the proposed standards is provided below.

1. EFF Sulfur Standards

Under the Tier 3 gasoline program, the EPA promulgated a 10 ppm annual average sulfur standard and 80 ppm refinery gate per-gallon sulfur cap for gasoline in order to allow gasoline refiners flexibility to accommodate brief excursions from the sulfur average standard during upsets in the operation of gasoline desulfurization units.[86] Similarly, we are proposing that a 10 ppm annual average sulfur standard would apply to all EFF. EFF full-refiners would also be subject to an 80 ppm refinery gate per-gallon sulfur cap similar to the requirements for gasoline refiners. Although EFF full-refiners are not expected to be desulfurizing EFF, but merely choosing which blendstocks to use to produce EFF, we believe that this approach would provide them with the flexibility to use an occasional batch of uncertified natural gasoline blendstock that has a somewhat higher sulfur content provided that they comply with the proposed 10 ppm annual average sulfur standard. We believe that this could help facilitate the use of natural gasoline as an EFF blendstock while maintaining the environmental goals of the program. EFF full-refiners would be required to test each batch of EFF to demonstrate compliance with these sulfur standards.

The 10 ppm annual average sulfur standard would apply to all parties throughout the EFF distribution system as well as to EFF full-refiners. However, parties other than the EFF full-refiner, such as bulk blenders, distributors, and retailers, would be deemed to be in compliance with the 10 ppm annual average sulfur standard if they maintain records to demonstrate they did not introduce uncertified blendstocks into the EFF they produce or distribute. The sulfur content of EFF produced by bulk blender-refiners and blender pump-refiners would be governed by the blending restrictions that accompany these certification options. All of the approved blend components would be subject to a 10 ppm annual average sulfur standard or a more protective 10 ppm per-gallon sulfur cap standard.[87] Depending on the sulfur content of the blend components used, the sulfur content of an individual batch of EFF could be greater than 10 ppm. However, the requirements on the blendstocks used by EFF bulk blender-refiners and EFF blender pump-refiners would ensure compliance with the 10 ppm annual average sulfur standard.

Consistent with the downstream gasoline sulfur standard under the current Tier 2 gasoline program and the Tier 3 gasoline program that will become effective January 1, 2017, we are proposing that EFF would be subject to a 95 ppm per-gallon sulfur cap standard downstream of EFF full-refiner facilities. This 95 ppm per-gallon sulfur cap would apply to EFF bulk blender-refiners, EFF blender pump-refiners and all other parties in the EFF distribution system downstream of EFF full-refiners. We believe that this would be sufficient to accommodate the use of gasoline that meets the 95 ppm per-gallon sulfur cap as an EFF blendstock by EFF bulk blender-refiners, and sulfur contamination from the use of downstream sulfur-containing EFF additives. An additional 15 ppm from the 80 ppm refinery gate sulfur cap was provided for gasoline downstream of the refinery gate under the Tier 3 gasoline program to allow for the most extreme cases where sulfur might be added to gasoline as a result of contamination during distribution or through the use of additives when sulfur is an essential functional component in the additive (*e.g.,* corrosion control, demulsifiers). Sulfur contamination during gasoline distribution is typically limited to less than 2 ppm. High sulfur additives are only used to remedy specific instances of gasoline quality problems where their treatment rate is governed by the desire to limit the added cost from their use.

We believe that distributors of EFF should be able to limit sulfur contamination at least as effectively as distributors of gasoline because EFF cannot be distributed by pipeline, which is where there is the highest potential for sulfur contamination of gasoline. The one link in the EFF production chain where unique concerns may exist regarding limiting sulfur contamination is in the distribution of certified natural gasoline EFF blendstock. The procedures necessary to limit contamination to the level required under this proposal may not be familiar to distributors of natural gasoline since natural gasoline is typically subject to broader quality specifications than those proposed for use as an EFF blendstock. Hence, there may be an increased chance for sulfur contamination of certified natural gasoline EFF blendstock during distribution from other higher-sulfur natural gasoline in the distribution chain during the initial phase-in of the program. The proposed 10 ppm per-gallon sulfur cap on certified natural gasoline EFF blendstock would apply throughout the distribution chain, including at the EFF full-refinery or bulk blender-refinery that uses certified natural gasoline EFF blendstock to make EFF. Therefore, sulfur contamination during the distribution of certified natural gasoline EFF blendstock should not impact the sulfur content of EFF. We would work with the producers, distributors, and users of certified natural gasoline EFF blendstock to make them aware of their responsibility to limit contamination during distribution during the implementation of the final rule.

Gasoline additives exist that are suitable for use in EFF. To the extent that additives may be specifically designed for use in EFF, we believe that such additives would not require higher sulfur content as an essential functional component to a greater extent than that

[85] The proposed EFF certification options are discussed in section IV.D of this preamble.

[86] See 79 FR 23414 (April 28, 2014).

[87] Gasoline and BOBs are currently subject to a 10 ppm annual average sulfur standard. We are proposing a 10 ppm per-gallon sulfur cap for certified natural gasoline EFF blendstock.

for additives designed solely for use in gasoline. Hence, we believe that the proposed 95 ppm downstream per-gallon sulfur cap for EFF would also be sufficient to accommodate even the most extreme cases of where sulfur contamination is at an unavoidable maximum and the maximum treatment rate of sulfur-containing additives is needed to address in-use quality problems. We anticipate that the vast majority of EFF would be close to the proposed 10 ppm annual average sulfur standard. Under the current Tier 2 gasoline program that places an average 30 ppm sulfur specification on refineries, gasoline survey data indicates that in-use gasoline sulfur average is 21 ppm with only 18 percent of the samples in the survey above 30 ppm, 2 percent above 50 ppm, and no samples above 80 ppm.[88] We intend to review in-use EFF and gasoline data after the implementation of the EPA's Tier 3 gasoline sulfur program and evaluate whether it would be possible to reduce the 80 ppm refinery gate and/or the 95 ppm downstream per-gallon sulfur caps for EFF and/or gasoline in a later action.[89] If such reductions are possible, it would provide improved ability for the EPA to more readily detect the potential addition of illegal high-sulfur blendstocks to EFF and/or gasoline.

The gasoline sulfur control program includes banking and trading (BT) provisions for sulfur credits across gasoline production facilities and companies. These BT provisions were included to address concerns that it would be difficult and costly for refiners to install the necessary desulfurization equipment to reduce the sulfur content of gasoline down to a 10 ppm annual average due to the high levels of sulfur naturally occurring in crude oil. In comparison, EFF producers could comply with the proposed sulfur specifications simply by using existing low sulfur DFE and gasoline as blendstocks as they do currently. Such EFF producers would have only minimal additional recordkeeping and PTD requirements as a result of this proposal.[90] Since EFF full-refiners and importers are not expected to need to install desulfurization equipment to produce EFF that complies with the proposed standards, we do not expect that a subset of EFF full-refiners would face a substantially greater compliance burden compared to others as was the case for gasoline refiners under the EPA's gasoline sulfur program. Therefore, credit trading among EFF full-refiners and importers is not necessary to ease the burden of compliance as it was under the gasoline sulfur program. Consequently, we are proposing that compliance with the proposed average standard sulfur standard for EFF would be evaluated on an EFF refinery-by-refinery basis.

API and AFPM commented on the Tier 3 proposal that BT provisions should be included for E16–50 producers and that the trading of credits generated under such provisions should be allowed to be used by gasoline refiners to demonstrate compliance with the gasoline sulfur standards. We do not believe that there is a need to allow any additional source of sulfur credits to enable compliance with the Tier 3 gasoline standards, and given the large volume difference, we believe allowing gasoline sulfur credits to be used for EFF compliance would circumvent reducing EFF sulfur levels to 10 ppm. Therefore, we are not proposing to allow any credit trading between EFF and gasoline.

2. EFF Benzene Standards

We are proposing that EFF would be subject to the same 0.62 volume percent annual average benzene standard that applies to gasoline. The Tier 3 proposal requested comment on the potential that EFF might be able to satisfy more stringent benzene requirements due to a potential increased benzene dilution effect in higher ethanol content blends.[91] We agree with the comments received that this would not be practical because of the uncertain benzene contribution to EFF from gasoline used as an EFF blendstock that is required to meet a 0.62 volume percent annual average benzene standard. This would particularly be an issue for lower-level ethanol content EFF blends such as E30 to the extent they may be produced upstream of a blender pump by an EFF full-refiner or bulk blender-refiner in the future rather than at a blender pump. In addition, holding EFF to a 0.62 volume percent annual average benzene standard would ensure an equivalent level of environmental protection as is provided by the requirements for gasoline while providing EFF full-refiners with greater flexibility in the natural gasoline they could use as an EFF blendstock. Therefore, while we believe that EFF produced by EFF full-refiners will typically be below 0.62 volume percent benzene concentration due to dilution from ethanol, we are proposing to set the benzene standard at the same 0.62 volume percent annual average applicable to gasoline.

EFF full-refiners would be required to test each batch of EFF to demonstrate compliance with the proposed annual average benzene standard. The 0.62 volume percent annual average benzene standard would apply to all parties throughout the EFF distribution system as well as to EFF full-refiners. However, parties other than EFF full-refiners, such as bulk blenders, distributors, and retailers, would be deemed to be in compliance with the 0.62 volume percent annual average benzene standard if they maintain records to demonstrate that they did not introduce uncertified blendstocks into the EFF they produce or distribute. Similar to the discussion above regarding sulfur, we are proposing that the benzene content of EFF produced by bulk blender-refiners and blender pump-refiners would be governed by the blending restrictions that accompany these certification options. All of the approved blend components would be subject to a 0.62 volume percent annual average benzene standard or a more protective benzene per-gallon cap standard.[92] Depending on the benzene level of any gasoline blendstock used, the benzene level of an individual batch of EFF could be greater than 0.62 volume percent. However, the requirements on the blendstocks used by EFF bulk blender-refiners and EFF blender pump-refiners would ensure compliance on an annual average basis.

Similar to the proposed EFF sulfur standards, we are also not proposing a BT program for the EFF benzene standards. We believe that the same conditions that led the EPA to include provisions under the gasoline benzene program for BT of benzene credits are not present for EFF full-refiners and importers. We do not expect that EFF full-refiners and importers would need to install processing equipment to remove benzene from EFF to meet the proposed 0.62 volume percent annual average benzene standard as was the

[88] Based on a review of 2013–2015 U.S. retail gasoline sulfur data from the proprietary Alliance of Automobile Manufacturers North American Fuel Survey. These data are available for purchase from the Alliance of Automobile Manufacturers, 803 7th Street NW., Suite 300, Washington, DC 20001.

[89] The gasoline 10 ppm annual average sulfur standard under the EPA's Tier 3 gasoline sulfur program will become effective on January 1, 2017.

[90] The only current means for a producer of E51–83 to be assured of compliance with the current requirement that E51–83 must be substantially similar to the fuel used during FFV vehicle certification is to limit the blendstocks used to gasoline, BOBs, and DFE. E16–50 is currently subject to all of the requirements for gasoline. This proposal would regulate all gasoline-ethanol blends that may only be used in FFVs (E16–83) as a group.

[91] See 78 FR 29936–29938 (May 21, 2013).

[92] Gasoline and BOBs are subject to a 0.62 volume percent annual average benzene standard. We are proposing a 0.62 volume percent benzene per-gallon cap for certified natural gasoline EFF blendstock.

case for gasoline refiners. EFF full-refiners and importers could comply with the proposed benzene specifications simply by using existing low-benzene DFE and gasoline as blendstocks as they do currently. Such EFF producers would have only minimal additional recordkeeping and PTD requirements as a result of this proposal. Hence, we are proposing that compliance with the proposed 0.62 volume percent annual average benzene standard would be evaluated annually on an EFF refinery-by-refinery basis.

3. EFF Volatility Standards

Volatility is a measure of the propensity of a liquid to evaporate. RVP is a standard measure of fuel volatility at 100 °F. The amount of evaporative emissions from a gasoline blend is closely related to its volatility. The components of gasoline and EFF have different volatilities because of their unique chemical make-up. The RVP of a finished gasoline made solely from the various hydrocarbons in the gasoline boiling range is essentially proportional to the RVP and blend ratios of the individual hydrocarbon blend components. That is to say, the RVP of gasoline hydrocarbons blends linearly similar to gasoline sulfur and benzene content. This is not the case when ethanol is added to gasoline. The addition of ethanol to gasoline increases the volatility of the blend until a concentration of approximately 10 volume percent, after which increasing ethanol concentration slowly decreases blend volatility. For example, for ethanol blends made with a 9 psi RVP gasoline (E0), the RVP increases to approximately 10 psi at 10 volume percent ethanol (E10) then decreases gradually with increased ethanol concentration to 9 psi at 50 volume percent ethanol (E50), and continues to decrease at a more pronounced rate to 6 psi at 80 volume percent ethanol (E80).[93]

As previously explained, FFVs are equipped with the same type of emissions control equipment to limit evaporative VOC emissions as are conventional gasoline vehicles. Controlling the volatility of EFF is important to limit the evaporative emissions from FFVs. Higher fuel volatility levels generates additional fuel vapor in a vehicle or engine fuel system that can cause ''breakthrough'' emissions from the evaporative emission control system of a vehicle or engine.[94] Therefore, consistent with the EPA approach to addressing evaporative emissions from gasoline, we believe that it is appropriate to set maximum RVP standards for EFF.

We believe that the maximum RVP requirements for gasoline are an appropriate benchmark to consider in determining what RVP standards to set for EFF. A 9.0 psi RVP maximum applies to gasoline in many CG areas, while a 7.8 psi RVP applies in certain southern CG areas where ambient temperatures are warmer, causing fuel volatility to be higher for a given RVP.[95] The RVP of RFG is governed by a VOC performance model that takes into account fuel VOC performance parameters other than fuel volatility. Hence, there is no set regulatory RVP maximum for RFG from June 1 through September 15. However, our review of RFG production data indicates that the RVP of RFG is typically about 7.0 psi from June 1 through September 15.[96]

Although FFVs are equipped with the same type of evaporative emissions control equipment as conventional gasoline vehicles, differences in the evaporative emissions testing requirements results in the evaporative emissions control equipment on FFVs being more robust than that installed on conventional gasoline vehicles. The capacity of vehicle evaporative emissions control equipment is driven by the vehicle evaporative emissions certification testing requirements. Vehicle evaporative emissions certification testing includes testing to evaluate both diurnal and refueling evaporative emissions. A 9.0 psi test fuel is specified for both diurnal and refueling evaporative emissions certification testing for conventional gasoline vehicles. Hence, the evaporative emissions control systems of conventional gasoline vehicles are sized to reliably cope with a maximum 9.0 psi RVP in-use fuel without breakthrough evaporative emissions.

Historically, and at present, FFVs are certified for both diurnal and refueling evaporative emissions compliance on the highest volatility fuel typically encountered in-use during the May 1 through September 15 volatility control period (*i.e.,* E10 at 10 psi RVP), resulting in evaporative emissions control systems that are sized and designed to handle additional fuel vapor as compared to conventional gasoline vehicles. Beginning with the Tier 3 vehicle standards, a 9.0 psi test fuel will be required for diurnal evaporative emissions testing for certification for FFVs as well as for conventional gasoline vehicles. However, a 10 psi test fuel was retained for FFV refueling emissions certification testing. The Tier 3 rule concluded that the RVP of the refueling emissions test is expected to continue to drive the capacity of evaporative control equipment on FFVs.[97] Therefore, we believe that FFVs operated on 10 psi in-use EFF would provide an equivalent level of evaporative emissions control to conventional gasoline vehicles operated on 9.0 psi in-use gasoline. Hence, we believe that in-use EFF should not exceed 10 psi to control the evaporative emissions from FFVs.

At the same time, as noted above, the RVP standard for gasoline in some areas is set below 9.0 psi (at 7.8 psi in certain CG areas or effectively 7.0 psi in RFG areas) to provide greater protection from excess emissions, either due to climatic considerations or ambient pollution concentrations.[98] We believe that it is appropriate to reflect these lower limits for EFF as well in these areas for these reasons.

[93] SAE technical paper 2007–01–4006, ''A Model for Estimating Vapor Pressures of Commingled Ethanol Fuels,'' Sam R. Reddy.

[94] Breakthrough evaporative emissions refers to the condition where the evaporative emissions control system of a vehicle becomes saturated, and further gasoline vapor generated is simply purged into the environment without being combusted in the engine.

[95] The EPA maximum RVP requirements for gasoline are applicable from May 1 through September 15 for parties in the gasoline production system other than gasoline retailers and WPCs. These requirements apply to gasoline retailers and WPCs from June 1 through September 15. See 40 CFR 80.27. A 1 psi RVP waiver was granted by Congress in 1990 to gasoline-ethanol blends of at least 9 volume percent and no greater than 10 volume percent ethanol (*i.e.,* E10) in CG areas. With the subsequent spread of E10 nationwide, E10 is now subject to a 10 psi RVP maximum in most CG areas and an 8.8 psi maximum in certain southern CG areas. As a result, much of conventional gasoline currently has volatility as high as 10 psi. Since conventional gasoline vehicles are designed for 9 psi, this leads to breakthrough VOC emissions from vehicle evaporative emissions control systems in CG areas. The 1 psi waiver for E10 does not apply to E10 in RFG areas. Hence, there is not the same issue with breakthrough evaporative emissions from the use of E10 in RFG areas. The Renewable Fuels Association (RFA) and the Alliance of Automobile Manufacturers (AAM) sent letters to the EPA requesting that the EPA effectively eliminate the relevance of the 1 psi RVP waiver for E10.

[96] See the memorandum, ''Volatility of Reformulated Gasoline,'' available in the docket for this action.

[97] See 79 FR 23509 (April 28, 2014).

[98] It should be noted that RFG areas fall into three categories depending on VOC regions (North vs. South) and whether the area is part of the VOC adjusted area (see 40 CFR 80.71 and 80.40(c)). Based on an analysis of the distribution of RVP samples, it is much simpler to have one RVP standard of 7.0 psi versus having three separate standards for EFF. Creating three different standards would potentially create fungibility issues with different types of RFG EFF and make the program much more complex, making it more burdensome for parties to comply. See the memorandum, ''Volatility of Reformulated Gasoline,'' available in the docket for this action.

The manufacture of EFF blends at blender pumps presents unique challenges with respect to ensuring volatility control since the RVP of such blends is often higher than that of either parent blend. For example, the RVP of EFF blends made at a blender pump using two parent blends (E10 and EFF), each less than 9 psi RVP, would be somewhat higher than 9 psi.[99] Nevertheless, since the RVP of EFF blends made at blender pumps is a direct function of the RVP of the parent blends used (which would be produced by EFF full-refiners and bulk blender-refiners), the volatility of EFF blends made at blender pumps can be controlled by setting appropriate RVP standards for the parent blends.

We conducted RVP modeling to evaluate what RVP standards for the EFF blends used as parent blends at blender pumps would provide adequate control of the RVP of EFF blends produced at blender pumps.[100] The modeling assumed that gasoline compliant with locally applicable RVP requirements would be used as the other parent blend.[101] This modeling indicates that limiting the RVP of EFF produced by full-refiners, importers, and bulk blender-refiners to 9.0 psi in CG areas subject to a 9.0 psi gasoline RVP standard would ensure that the RVP of EFF produced at blender pumps is expected to be below 10 psi. Limiting the RVP of EFF produced by full-refiners, importers, and bulk blender-refiners to 7.8 psi in CG areas where a 7.8 psi RVP standard applies to gasoline would likewise ensure that EFF blends made at blender pumps is expected to be below 8.8 psi. Similarly, limiting the RVP of EFF produced by full-refiners, importers, and bulk blender-refiners to 7.0 psi in RFG areas would ensure that EFF made at blender pumps is be expected to be below 8.0 psi. As a result of the greater capability of FFVs to control evaporative emissions compared to conventional gasoline vehicles, we believe that controlling the RVP of EFF to 8.8 psi in CG areas where gasoline is subject to a 7.8 psi RVP standard and to 8.0 psi in RFG areas would provide a comparable level of evaporative emissions for FFVs operated on EFF compared to conventional gasoline vehicles operated on gasoline.

As discussed above, we believe that limiting the RVP of EFF produced at blender pumps to the target levels described above would provide a comparable level of evaporative emissions for FFVs operated on EFF compared to conventional gasoline vehicles operated on gasoline. The RVP modeling results indicate that the RVP of EFF blends made at blender pumps would exceed the target maximums by only as much as 0.2 psi using worst-case assumptions.[102] Given the unlikelihood of the alignment of these worse-case conditions [103] and the believed conservative nature of the RVP model,[104] we do not anticipate such higher levels to be seen in-use.

Therefore, we are proposing that the RVP requirements for EFF for full-refiners, importers, and bulk blender-refiners would generally track those of gasoline, with a maximum RVP of 9.0 or 7.8 psi for CG areas (depending on the applicable gasoline RVP standard), and an RVP maximum of 7.0 psi for RFG areas (which is comparable to the average RVP of RFG). We are soliciting comment on these standards. We also seek comment on setting a 9.0 RVP standard for EFF produced by full-refiners, importers, and bulk blender-refiners for use in all CG areas rather than imposing lower standards commensurate with the lower gasoline RVP standards that apply in certain areas.

We believe that the proposed parent blend requirements for EFF blender pump-refiners, including the proposed RVP standards for EFF produced by EFF full-refiners and bulk blender-refiners discussed above would provide sufficient control of the RVP of EFF made at blender pumps. Therefore, we do not believe that an RVP standard for EFF produced at blender pumps is needed at this time. We are also proposing an independent survey of the RVP of EFF at blender pumps.[105] The EPA would monitor the RVP of EFF produced at blender pumps, and if the results of this evaluation indicate that additional controls of EFF at blender pumps are warranted, such controls may be proposed in a later action. We request comment on whether the EPA should implement additional measures to control EFF volatility at this time. Such additional measures might include: (1) Additional limitations on the gasoline parent blends used, such as prohibiting the use of E0 as a parent blend; (2) Further restrictions on the amount of natural gasoline that could be used; and/or (3) A lower RVP maximum for the natural gasoline EFF blendstock.

Similar to the gasoline RVP requirements, we are proposing that the proposed EFF RVP standards would apply to EFF retailers and WPCs from June 1 through September 15 and to all other parties in the EFF production and distribution system from May 1 through September 15 of each year. Thus, a retailer or WPC would be liable for RVP violations if their EFF parent blends or EFF blends distributed from a dedicated dispenser exceeded these RVP limits from June 1 through September 15 and upstream parties would be liable for the RVP of the EFF they produce or distribute from May 1 through September 15. The EPA could evaluate compliance with these standards by sampling and testing the EFF parent blends from the underground storage tank. We seek comment on whether the EPA could evaluate compliance by setting the blender pump to dispense EFF only, flushing the pump, and collecting a sample from the blender pump dispenser.

We believe that E51–83 blends produced with the hydrocarbon blendstocks allowed under the current requirements for E51–83 (gasoline and BOBs) would necessarily meet the proposed maximum RVP requirements as a result of the volatility blending characteristics. In fact, at high ethanol concentrations, E85 is currently challenged to have sufficiently high RVP to meet the minimum ASTM volatility specification for proper vehicle cold start and driveability. Therefore, the proposed RVP requirements would not result in a further constraint to E51–83 RVP blending practices compared to the current situation. Rather, the proposed increased flexibility to use natural gasoline as an EFF blend component would likely allow the RVP of EFF to increase up to the evaporative control limits of FFVs. This should not only help E51–83 meet the minimum ASTM volatility specification at greater ethanol concentrations, but also reduce the cost of all EFF and potentially improve the exhaust emission performance of FFVs. Since the proposed EFF RVP standards parallel those for gasoline, this would

[99] See the memorandum, ''Volatility of Ethanol Blends Made at Blender Pumps,'' available in the docket for this action.

[100] *Id.*

[101] See Table IV.B.3–1 in this preamble for a summary of the proposed blender pump parent blend requirements and expected resulting maximum RVP of EFF blends produced at blender pumps.

[102] The RVP of EFF made at blender pumps would typically be significantly below the target levels.

[103] The marginal exceedances of the target RVP for EFF blends made at retail that are indicated by the RVP modeling primarily are associated with the use of E0 as a parent blend. The vast majority of gasoline in the U.S. is E10. There is relatively little E0 available at retail and which is typically sold from dedicated E0 dispensers, rather than at blender pumps, due to marketing considerations.

[104] Based on anecdotal information from parties familiar with the RVP model.

[105] The proposed EFF quality survey requirements are discussed in section IV.F.9 of this preamble.

not constitute increase in the stringency of the standards for E16–50 EFF blends that are currently subject to all of the requirements applicable to gasoline, including the gasoline RVP standards.

ASTM has set minimum volatility specifications on E51–83 for safety reasons and to ensure adequate startability and drivability, which are critical for exhaust emission performance.[106] Since rapid engine start-up, warm-up, and drivability is important for vehicles to comply with the proposed Tier 3 exhaust emission standards, the Tier 3 proposal requested comment on whether it would be important that the EPA impose minimum volatility standards for E51–83 consistent with those in the ASTM standard. The comments indicated that concerns about E51–83 meeting ASTM minimum volatility standards have essentially been resolved by the change in the ASTM standard from a minimum 68 volume percent ethanol specification to a 51 volume percent specification.[107] We believe that the increased flexibility that this proposal would provide by allowing natural gasoline to be used as an EFF blendstock would also help to resolve any remaining concerns about EFF not meeting an appropriate RVP minimum, and at the same time enable the use of higher levels of ethanol to do so. The EPA is not aware of concerns about instances of excessively low volatility of E16–50 causing startability and driveability problems that could increase FFV emissions. We believe such concerns do not exist for E16–50 blends because the effect of increasing ethanol concentrations in higher level ethanol blends on depressing gasoline blend volatility is most pronounced for E51–83 blends. Therefore, we are not proposing RVP minimum specifications for EFF at this time.

4. EFF Elemental Composition Requirements

Elements that can poison (deactivate) vehicle emission control catalysts such as anions or cations (*e.g.,* metals) can exist naturally in petroleum deposits or can be added in the process of extracting such deposits. They can also become entrained in either petroleum or ethanol products through contamination or be purposely added to a fuel. CAA section 211(f)(1) requires that fuel and fuel additives used in commerce must be ''substantially similar'' to fuel used in certification. This requirement applies to all fuels used in motor vehicles, including the fuels used in FFVs. On July 28, 1981 (46 FR 38582), the EPA finalized an interpretation of the term ''substantially similar'' in terms of a fuel or fuel additive's elemental content in motor vehicle gasoline. The fuel or fuel additive elemental content in this ''substantially similar'' interpretive rule was limited to CHONS. Refiners are required to limit the elemental composition of the gasoline they produce to CHONS, except for trace quantities of other atypical elements.

Emissions certification testing of FFVs is required using both the test fuel specified for conventional gasoline vehicles and a high ethanol content FFV test fuel (E83). Regulatory specifications for conventional gasoline emissions certification test fuel have long existed to ensure that atypical elements are not present. Regulatory specifications for the high-ethanol content FFV certification test fuel were finalized in the Tier 3 final rule and will become mandatory for model year (MY) 2017 FFVs.[108] These regulations ensure that FFV exhaust emissions test fuel is composed of only CHONS. Prior to the FFV test fuel specifications finalized in the Tier 3 rule, the EPA practice has been to blend FFV test fuel using indolene (E0) with neat (undenatured) ethanol. These blendstocks are composed only of CHONS. It is our understanding that manufacturers of FFVs have followed EPA practice when blending FFV exhaust emissions certification test fuel. Thus, FFV certification test fuel has been composed solely of CHONS prior to the Tier 3 rule that clarified this requirement. Hence, it has been a long standing EPA policy that in-use EFF fuel must be composed of only CHONS. We are proposing regulatory specifications to clarify this requirement for all in-use EFF.

Non-CHONS elements are typically removed during the processes used to produce gasoline compliant with EPA sulfur standards at crude oil refineries. Hence, the EPA has had good assurance that gasoline refiners are complying with the CHONS requirement despite the lack of a testing requirement or specific limit on the quantities of atypical elements that may be present in gasoline. The main potential source of atypical elements in gasoline is additives added to gasoline after the gasoline is produced at a crude oil refinery; however, such additives are also required to be CHONS.

E51–83 was also assured to be composed of only CHONS when gasoline and BOBs were the only hydrocarbon blendstocks used in its manufacture. E16–50 has been assured to be CHONS by the current provisions that apply the requirements applicable to gasoline to these blends and the fact that it is typically blended from E51–83 and E10. This proposal includes provisions to treat all E16–83 as EFF and to allow EFF full-refiners, importers, and EFF bulk blender-refiners to use natural gasoline to produce EFF. There is no existing CHONS requirement for natural gasoline used as an EFF blendstock. Therefore we are proposing that EFF would be required to be CHONS, and are proposing additional CHONS requirements on natural gasoline EFF blendstock. We believe that the proposed provisions for natural gasoline EFF blendstock and the existing provisions for the other EFF blendstocks would ensure that EFF would be CHONS.[109] Therefore, we are not proposing a testing requirement or specific limit on the quantities of atypical elements that may be present in finished EFF at this time. The EPA intends to further evaluate the potential presence of non-CHONS elements in EFF as well as in gasoline and may propose additional control measures in the future if warranted. We request comment on whether additional controls may be needed to prevent the presence of non-CHONS elements in EFF as well as gasoline, with associated supporting data.

5. Additives Used in EFF

Special provisions were provided under the gasoline sulfur program to accommodate additives that require sulfur in their functional components. These provisions allowed the continued use of such important additives while ensuring compliance with the 95 ppm downstream per-gallon sulfur cap for gasoline. We are proposing that additives used in EFF would be subject to the same sulfur requirements that apply to additives used in gasoline.[110] Under this proposal, an additive would be required to contribute no more than 3 ppm to the sulfur content of EFF when used at the maximum recommended treatment rate. The additive manufacturer would be required to

[106] ASTM D5798–14, ''Standard Specification for Ethanol Fuel Blends for Flexible-Fuel Automotive Spark-Ignition Engines.''

[107] The change by ASTM to a minimum 51 volume percent ethanol specification was made to allow more hydrocarbons to be used in the blend to help meet minimum volatility requirements.

[108] See 79 FR 23414 (April 28, 2014) and 40 CFR 1065.725.

[109] The other proposed EFF blendstocks are finished gasoline, BOBs, DFE, and undenatured ethanol.

[110] EFF additives are sold for use at a concentration of less than 1.0 volume percent in EFF.

maintain records of its additive production quality control activities that demonstrate that the sulfur content of the additive is compliant with this requirement. The 3 ppm maximum was determined to be sufficient to accommodate all gasoline additives, and we believe that additives used in EFF do not differ from gasoline additives with respect to the sulfur content necessary to provide the additive's functionality. These proposed requirements would allow for the continued use of important EFF additives while ensuring compliance with the proposed 95 ppm per-gallon sulfur cap for EFF. We are also proposing that manufacturers of additives for use in EFF certify that there are no non-CHONS elements present. The use of additives that contain non-CHONS elements such as metals in EFF would be prohibited unless the EPA were to determine that the use of such an additive would not cause or contribute to regulated emissions failures of FFVs, and was granted a waiver to allow its use in EFF pursuant to the requirements of CAA section 211. Similar to gasoline additives, which have no benzene requirements, we believe that benzene requirements for additives used in EFF are not necessary because benzene is not a typical additive component and the 1 volume percent cap on additive concentration would further limit any potential impact on finished fuels from the limited benzene content of additives.

We believe that there would be no need for the use of additives in certified natural gasoline EFF blendstock from the point of its production to its use to produce EFF. Therefore, we are proposing to prohibit the addition of additives to certified natural gasoline EFF blendstock. We request comment on whether provisions including sulfur standards are needed to facilitate the use of additives in certified natural gasoline EFF blendstock. If we were to finalize provisions to allow the use of additives in certified natural gasoline EFF blendstock, the use of additives that contain non-CHONS elements such as metals would be prohibited unless the EPA were to determine that the use of such an additive would not cause or contribute to regulated emissions failures of FFVs, and granted a waiver to allow its use in EFF pursuant to the requirements of CAA section 211.

We also believe that there would be no need for the use of additives in uncertified natural gasoline EFF blendstock from the point of its production to its use to produce EFF. EFF full-refiners that use uncertified natural gasoline EFF blendstock are required to test each batch of finished EFF. Therefore the potential impact on the sulfur and benzene content from the possible addition of additives to uncertified natural gasoline EFF blendstock would be reflected in the per-batch EFF testing required of EFF full-refiners, and there would be no need for sulfur or other standards for such additives. The use of additives that contain non-CHONS elements such as metals in uncertified natural gasoline EFF blendstock would be prohibited unless the EPA were to determine that the use of such an additive would not cause or contribute to regulated emissions failures of FFVs, and granted a waiver to allow its use in EFF pursuant to the requirements of CAA section 211. We are proposing that EFF full-refiners would be required to secure a PTD from the uncertified natural gasoline EFF blendstock supplier that demonstrates that it contains no non-CHONS elements.

6. EFF Deposit Control

The current deposit control regulations require that the gasoline portion of E51–83 must contain a certified deposit control additive at a concentration at least as great as that used during gasoline deposit control additive certification testing (referred to as the lowest additive concentration or LAC).[111] The addition of ethanol to gasoline, with deposit control additive at the LAC, to produce E51–83 results in a deposit control additive concentration that is lower than the LAC due to the increased dilution from the additional ethanol. The EPA is not aware of data on the deposit control needs of FFVs that operate on E51–83. It is unclear the extent to which the current requirements are effective in aiding the control of deposits in FFV engine and fuel supply systems that result from the use of EFF. Stakeholders have stated that as additive concentration diminishes due to dilution with DFE, there is a point where the presence of a deposit control additive ceases to be beneficial and can actually contribute to deposit formation. Certain deposit control additives are also not completely soluble in high ethanol content blends. In light of this, the Tier 3 proposal requested comment on removing the requirement that the gasoline portion of E51–83 must contain a deposit control additive until the specific deposit control needs of these blends can be evaluated. To the extent that E16–50 would no longer be treated as gasoline, we also requested comment on not applying gasoline deposit control standards to these blends pending further study.

We continue to believe that the current deposit control requirement for the gasoline portion of E51–83 is not providing a meaningful benefit to deposit control in these blends and may actually contribute to deposits. There is currently insufficient data regarding the potential effects of deposits on FFV emissions and what regulatory specifications may be appropriate for deposit control additives used in EFF. Likewise there are no test procedures that might be used for regulatory purposes. Therefore, we are proposing to amend the regulations to remove the requirement that the gasoline portion of E51–83 must contain a certified deposit control additive.

There are similar concerns regarding using deposit control additives certified for gasoline use in E16–50. Consequently we are also proposing to defer setting deposit control requirements for E16–50. We appreciate the concerns expressed in the comments on the Tier 3 proposal that all spark ignition fuels, including EFF, should be required to provide a minimum level of deposit control. We may consider adopting deposit control requirements for EFF in a later action should appropriate deposit additives and test procedures be developed for use with EFF and data become available to establish that there is sufficient environmental need. In the meantime, we believe that the resolution of this issue is best left to the marketplace.

7. Standards for Blendstocks Used by EFF Full-Refiners and Bulk Blender-Refiners

EPA-compliant gasoline, BOBs, and DFE can be used to produce E85 under the current regulatory requirements. There are already regulations in place under the EPA's gasoline program regarding the sulfur, benzene, and presence of atypical elements in such blendstocks that assure they are of sufficient quality for use in vehicle fuels (including all EFF). This proposal would create a new classification of certified natural gasoline EFF blendstock that could also be used by EFF bulk blender-refiners. This proposal would also create a new classification of uncertified natural gasoline EFF blendstock that could be used by EFF full-refiners. Therefore, new fuel quality requirements are needed for such natural gasoline EFF blendstocks. We are proposing that hydrocarbons that are imported for use as an EFF blendstock must be sourced from a foreign refiner that is registered with the EPA. We believe that this requirement is

[111] See 40 CFR 80.161(a)(3).

necessary to provide the EPA with sufficient oversight to ensure that such hydrocarbon blendstocks meet the proposed quality specifications. We are also requesting comment on allowing butane and pentane that are approved for downstream blending into gasoline to be used by EFF full-refiners and bulk blender-refiners.

a. Certified Natural Gasoline EFF Blendstock

To ensure that the use of certified natural gasoline as an EFF blendstock by EFF full-refiners and bulk blender-refiners does not result in increased FFV emissions, we are proposing that producers of certified natural gasoline EFF blendstock must demonstrate compliance with proposed quality requirements regarding sulfur and benzene content. We are also proposing that certified natural gasoline EFF blendstock be composed solely of CHONS.

The natural gasoline that is typically used to denature ethanol is likely unsuitably high in sulfur and benzene content to ensure adequate FFV emission control performance.[112] The EPA set a 330 ppm per-gallon sulfur cap on ethanol denaturant effective January 1, 2017, concurrent with the implementation of the Tier 3 sulfur program. The use of denaturant with 330 ppm sulfur at the maximum 3 volume percent denaturant concentration finalized under the Tier 3 program would result in 10 ppm sulfur content for the resulting DFE, consistent with the Tier 3 requirements for DFE. The EPA did not finalize a benzene specification for DFE because it was judged that the presence of the 3 volume percent cap on denaturant concentration finalized under the Tier 3 program would limit benzene concentration in DFE to well below the 0.62 volume percent annual average applicable for gasoline. These specifications assume dilution of the sulfur and benzene content of the denaturant with 97 percent neat (undenatured) ethanol that is assumed to be free of sulfur and benzene.

However, if ethanol denaturant is used as a blendstock in EFF, the concentration of such denaturant relative to the undenatured ethanol used would be substantially higher than in DFE, resulting in insufficient dilution of the sulfur and benzene present in the denaturant. For example, if 30 percent denaturant at 330 ppm sulfur was used with 70 percent undenatured ethanol to make E70, the resulting sulfur content of the finished E70 would consistently be close to 100 ppm. Such consistently high sulfur levels in EFF would result in significant FFV emissions control catalyst performance degradation and a substantial increase in FFV emissions.

Therefore, to ensure that the emissions control equipment of FFVs running on EFF are not impaired and that FFVs have the same emissions performance as conventional gasoline vehicles running on gasoline, we are proposing that certified natural gasoline EFF blendstock would be required to meet a 10 ppm per-gallon sulfur cap and a 0.62 volume percent per-gallon benzene cap. These proposed standards would be consistent with the average standards applicable for gasoline and would ensure that the sulfur and benzene content of EFF made by bulk blender-refiners is equivalent to the levels found in gasoline without the need to impose a per-batch testing requirement.[113] Setting cap standards for blendstocks used by blenders where additional testing is not required and that are equivalent to the average standards applicable to refiners (where per-batch testing is required) is consistent with the established approach for DFE and butane/pentane blended into gasoline and will help facilitate enforcement by allowing the EPA to evaluate compliance on a batch-by-batch basis.

We are proposing that certified natural gasoline EFF blendstock would be required to be composed solely of CHONS similar to the requirement for gasoline producers. To ensure that certified natural gasoline EFF blendstock is CHONS, we are proposing that it would be required to be sourced from either a natural gas processing facility or a crude oil refinery. We are proposing that a natural gas processing plant means a facility designed to ''clean'' raw natural gas by separating impurities and various non-methane hydrocarbons and fluids to produce what is known as ''pipeline quality'' dry natural gas. A gas processing plant is used to recover natural gas liquids including natural gasoline and to remove other substances such as sulfur and benzene from natural gasoline EFF blendstock as needed.[114] We believe that the processing steps used to produce certified natural gasoline EFF blendstock at a natural gas processing plant or crude oil refinery would provide adequate assurance that non-CHONS elements are not present or would be removed, as opposed to other potential sources of similar boiling range materials. To the extent that non-CHONS elements are present in raw natural gas liquids, they would primarily be present in the heavier boiling fractions that would be removed at natural gas processing plants and crude oil refineries in the processes used to produce natural gasoline. We are also proposing that the natural gasoline must have received processing at a natural gas processing plant or crude oil refinery, such as in a distillation tower and/or desulfurization unit. These provisions would preclude a natural gas processing plant or crude oil refinery from purchasing natural gasoline and reselling it for use as certified natural gasoline without the natural gasoline having been subjected to processing to assure its quality. The proposed distillation specifications for certified natural gasoline EFF blendstock discussed below would provide additional assurance that non-CHONS elements are not present by requiring that high boiling fraction materials are not present in significant quantities. Existing provisions for the other EFF blendstocks would continue to ensure that they are CHONS.[115] Therefore, we are not proposing a testing requirement or specific limit on the quantities of atypical elements that may be present in certified natural gasoline EFF blendstock at this time. The EPA intends to further evaluate the potential presence of non-CHONS elements in certified natural gasoline EFF blendstock and may propose additional control measures in the future if warranted. We request comment on whether additional controls may be needed to prevent the presence of non-CHONS elements in natural gasoline EFF blendstock, with associated supporting data.

To prevent an inappropriately high concentration of high boiling point hydrocarbons in natural gasoline, we are proposing 275 °F T90 distillation and 375 °F final boiling point specifications consistent with a commonly observed

[112] We have insufficient data on the sulfur and benzene content of natural gasoline used to denature ethanol to characterize the extent of this concern.

[113] The gasoline 10 ppm annual average sulfur standard under EPA's Tier 3 gasoline program will become effective January 1, 2017 (40 CFR 80.1603(a)). The gasoline 0.62 volume percent annual average benzene standard became effective January 1, 2011 (40 CFR 80.1230(a)).

[114] The proposed definition of natural gas processing facility is based on a definition used by the U.S. Department of Transportation, Pipeline & Hazardous Materials Safety Administration at *https://primis.phmsa.dot.gov/comm/FactSheets/FSNaturalGasProcessingPlants.htm*.

[115] The other proposed EFF blendstocks are finished gasoline, gasoline BOBs, DFE, and undenatured ethanol.

industry consensus specification.[116] We believe that most natural gasoline, and in particular that which is a by-product of natural gas production, would typically be well below these limits naturally. Since natural gasoline is typically lighter than gasoline, these standards would act as a backstop to prevent heavy hydrocarbons that could lead to increased FFV emissions from being present in natural gasoline. We understand that some distributors of natural gasoline observe 365 °F T90 distillation and 437 °F final boiling point specifications for the natural gasoline they handle.[117] However, we believe that these specifications would allow for the presence of an inappropriately high concentration of high boiling point hydrocarbons in natural gasoline used as an EFF blendstock, which could lead to elevated exhaust emissions. Additionally these specifications are not necessary to allow for adequate supply of certified natural gasoline, and could make enforcement against inappropriate addition of compounds to EFF more difficult. We request comment on whether the proposed specifications are appropriate or whether different specifications are needed to be adequately protective, such as simply establishing a 300 °F final boiling point specification.

We are proposing that certified natural gasoline EFF blendstock would be subject to a 15 psi RVP maximum specification. This would provide additional assurance that an abnormally high fraction of higher boiling compounds are not present that could lead to unexpected vehicle performance issues that could adversely impact FFV emissions. We believe that this is consistent with current industry practice that limits natural gasoline RVP to below atmospheric pressure (14.7 psi) to avoid the need for more costly storage vessels.

We are also proposing that refiners and importers of certified natural gasoline EFF blendstock would be required to register with the EPA, submit batch reports annually, and issue PTDs indicating that their product is suitable for use by EFF bulk blender-refiners. We are proposing that the PTD also include the RVP of the natural gasoline to facilitate use of the proposed RVP tool to demonstrate compliance by EFF bulk blender-refiners with the proposed maximum RVP specification.

The proposed RVP requirements for EFF would typically limit the amount of natural gasoline that could be used to make EFF from May 1 through September 15 for parties upstream of retail and WPC facilities to about 30 volume percent.[118] However, from September 16 through April 30 for parties upstream of retail and WPC facilities, it would technically be possible to use natural gasoline as the sole hydrocarbon blendstock in EFF while still meeting the ASTM RVP maximum requirement absent additional controls. In the most extreme case, this might result in an E16 blend made with 84 percent natural gasoline.

The industry consensus ASTM standard for E51–83 allows the use of natural gasoline as a blendstock.[119] However, there is currently no ASTM standard for E16–50 blends where natural gasoline could be the primary hydrocarbon blendstock.[120] There could be operability issues that arise from the use of natural gasoline as the primary hydrocarbon blendstock in E16–50 that have yet to be addressed. Additionally, while permitted, it is not clear that ASTM envisioned natural gasoline to be used in E51–83 in concentrations up to 49 volume percent. Given the wide variability in the composition and distillation range of natural gasoline and its potential to naturally contain atypical compounds in concentrations greater than found in refined gasoline, a limit of 30 volume percent may be more appropriate. Therefore, to address concerns that the potential overuse of natural gasoline to produce EFF might result in unforeseen vehicle operability and/or emission performance problems, we are proposing to limit the amount of natural gasoline that may be used as a blendstock to produce EFF with DFE and other approved blendstocks to 30 volume percent.[121] Natural gasoline is often used as a denaturant in DFE and beginning with the January 1, 2017, implementation date for the Tier 3 gasoline program, the denaturant concentration in DFE will be limited to 3 volume percent.[122] The proposed 30 volume percent limit on the use of natural gasoline as an EFF blendstock would not include the amount of natural gasoline used to denature ethanol. Thus, if 30 volume percent natural gasoline blendstock was added to 70 volume percent DFE containing natural gasoline as a denaturant, the concentration of natural gasoline in the finished EFF blend would be approximately 32 volume percent.

We believe that these proposed standards are necessary to ensure that the proposed flexibility to allow natural gasoline use as an EFF blendstock would not result in increased FFV emissions. ASTM recently published a standard that for the first time put in place a level of quality control for natural gasoline used as an E51–83 blendstock.[123] This ASTM standard noted that it would be appropriate for such blendstock used in the U.S. outside of California to meet a 30 ppm sulfur maximum consistent with the current 30 ppm average gasoline sulfur requirement under the EPA's Tier 2 gasoline program, and a 0.62 volume percent benzene cap consistent with the EPA's gasoline benzene program.[124] The ASTM standard also noted that the 30 ppm sulfur maximum would be adjusted to remain consistent with the gasoline 10 ppm average sulfur standard when the EPA's Tier 3 gasoline program is implemented on January 1, 2017. This approach is consistent with our proposal to match the sulfur and benzene cap standards to the average standards currently applicable for gasoline. The ASTM standard also notes the importance of preventing the presence of non-CHONS elements in natural gasoline and states that work is underway to evaluate this potential concern. Therefore, the ASTM standard should help to prepare industry to comply with the EPA's proposed specifications for natural gasoline EFF blendstock. Some states require compliance with ASTM fuel standards. Hence, the ASTM standard for natural gasoline may provide some additional assurance of compliance with the

[116] Gas Processors Association Standard 3132–84, ''Natural Gasoline Specifications and Test Methods.''

[117] ASTM D8011–16, ''Standard Specification for Natural Gasoline as a Blendstock in Ethanol Fuel Blends or as a Denaturant for Fuel Ethanol.''

[118] This assumes a 12 psi RVP for the natural gasoline used as an EFF blendstock. Due to variability in natural gasoline RVP, the use of more or less natural gasoline to produce EFF could be possible while maintaining compliance with the proposed EFF RVP requirements.

[119] ASTM D5798–15, ''Standard Specification for Ethanol Fuel Blends for Flexible-Fuel Automotive Spark-Ignition Engines.''

[120] ASTM D7794–14, ''Standard Practice for Blending Mid-Level Ethanol Fuel Blends for Flexible-Fuel Vehicles with Automotive Spark-Ignition Engines,'' specifies procedures for blending mid-level ethanol blends (E16–50) using E51–83 that conforms to ASTM D5798–15. Under ASTM D5798–15, E51–83 may be produced using natural gasoline as a blendstock provided that the finished E51–83 meets all the specifications including maximum RVP.

[121] The proposed 30 volume percent limit on natural gasoline used as an EFF blendstock would apply to the sum of certified natural gasoline EFF blendstock and uncertified natural gasoline EFF blendstock used to produce EFF.

[122] See 40 CFR 80.1610.

[123] ASTM D8011–16, Standard Specification for Natural Gasoline as a Blendstock in Ethanol Fuel Blends or as a Denaturant for Fuel Ethanol.''

[124] The Tier 2 program's 30 ppm annual average sulfur standard in 40 CFR 80.195(a)(1) will be replaced by the Tier 3 program's 10 ppm annual average sulfur standard beginning January 1, 2017 (40 CFR 1603(a)).

proposed requirements in this proposal. However, the ASTM standards are voluntary industry consensus standards that are not enforceable nationwide. As discussed above, the proposed requirements for natural gasoline EFF blendstock also contain a number of provisions and safeguards, including EPA compliance oversight, that are not present in the ASTM standard. Therefore, as with many of our other fuel standards, these proposed provisions would provide substantially greater assurance that the quality of natural gasoline used as an EFF blendstock is sufficient to support the EPA's emissions control goals for FFVs compared the ASTM standard alone.

We believe the economic incentive provided by this new flexibility would be sufficient for natural gasoline producers to take the necessary steps to provide certified natural gasoline EFF blendstock to EFF full-refiners and bulk blender-refiners. For example, E70 could be produced with approximately 30 volume percent natural gasoline while meeting the proposed 9 psi maximum RVP standard in CG areas.[125] Depending on the cost of the blendstocks used, E70 made with natural gasoline could be approximately 5 percent less costly on an energy adjusted basis compared to using gasoline as the sole hydrocarbon blendstock.[126] EFF could also continue to be manufactured using gasoline/BOBs as under current regulatory requirements. Hence, a potential shortage of natural gasoline that meets the proposed specifications for use an EFF blendstock would not interfere with the production of EFF compared to the current requirements.

b. Uncertified Natural Gasoline EFF Blendstock

EFF full-refiners could use uncertified natural gasoline EFF blendstock provided that they demonstrate that each batch: (1) Was sourced from a natural gas processing plant or crude oil refinery; (2) Meets 275 °F T90 distillation and 375 °F final boiling point specifications; and (3) Meets a maximum 15 psi RVP specification. These requirements parallel those proposed above for certified natural gasoline EFF blendstock to ensure that non-CHONS elements are not present and that an undue fraction of heavy or light boiling fractions are not present. EFF full-refiners could test each batch of uncertified natural gasoline EFF blendstock to demonstrate compliance with the proposed T90, final boiling point, and maximum RVP specifications. EFF full-refiners would also need to obtain documentation from their suppliers that demonstrates that uncertified natural gasoline EFF blendstock was sourced from a processing unit such as a distillation tower and/or desulfurization unit at natural gas processing plant or crude oil refinery. Such documentation would need to establish that the uncertified natural gasoline had received some processing at a natural gas processing plant or crude oil refinery, such as in a distillation tower and/or desulfurization unit. We are not proposing sulfur or benzene specifications for uncertified natural gasoline EFF blendstock because EFF full-refiners would already be required to test each finished batch of EFF to demonstrate compliance with the proposed sulfur and benzene specifications for EFF.[127]

c. Butane and Pentane

We request comment on allowing butane and pentane that meets the requirements for downstream gasoline blending to be used as blendstocks by EFF full-refiners and bulk blender-refiners.[128] We further request comment on whether their use as EFF blendstocks should be limited to the period from September 16 through April 30. Butane and pentane blended into gasoline downstream of the refinery are required to meet a 10 ppm per-gallon sulfur cap under the Tier 3 gasoline sulfur program. Such butane and pentane are also required to meet a 0.03 volume percent benzene cap. These standards would ensure that butane and pentane are suitable for use as EFF blendstocks with respect to sulfur and benzene content. The gasoline program requirements for these blendstocks would also ensure that atypical elements are not present. However, they are not typically used currently for producing EFF and their high volatility could constrain their use. We request comment on whether allowing the use of butane and pentane as EFF blendstocks could result in unforeseen distillation issues for the final EFF blend. The potential existence of adverse impacts on the properties of the finished EFF blend is the primary reason why we are not proposing to allow the use of butane and pentane as EFF blendstocks at this time. Another complicating factor is that the proposed RVP compliance tool would not adequately cover butane and pentane blending in its current form.[129]

d. Potential Additional Grades of DFE and Natural Gasoline

Ethanol producers have requested that the EPA consider a means to certify a grade of DFE that meets lower sulfur and benzene caps for use with a grade of certified natural gasoline EFF blendstock that meets higher sulfur and benzene standards than those proposed above. The respective sulfur and benzene standards for these grades would be set to provide equivalent sulfur and benzene levels in the finished EFF blends produced as would be achieved by using DFE that meets the existing requirements [130] and certified natural gasoline EFF blendstock that meets the proposed sulfur and benzene standards. This approach would be similar to that outlined in the recent ASTM standard for natural gasoline used in higher level ethanol blends.[131]

The use of undenatured ethanol as an EFF blendstock rather than DFE might provide even more opportunity for dilution of the sulfur and benzene content of natural gasoline used as an EFF blendstock. Hence, there may also be the potential for yet another grade of certified natural gasoline EFF blendstock with somewhat higher sulfur and benzene specifications to be used at ethanol production plants in combination with undenatured ethanol to make EFF. Under such an approach, the sulfur and benzene content of the undenatured ethanol could be considered negligible provided that the producer maintains production quality control records to demonstrate that

[125] The amount of high-volatility natural gasoline that could be used as an EFF blendstock would be governed by what regional RVP specification applied to EFF.

[126] The cost of ethanol, gasoline, and natural gasoline tend to vary over time both individually and in relation to one another. See the memorandum, ''Potential Impact on E85 Cost from the use of Natural Gasoline as Blendstock,'' available in the docket for this action. The relationship between the price of E85 compared to the price of E10 and E85 sales was discussed in the 2014–2016 RFS final rule (80 FR 77420, December 14, 2015). See Figure II.E.2.iii–1.

[127] EFF full-refiners would also be required to test each batch of EFF to demonstrate compliance with the proposed EFF RVP requirements.

[128] The requirements for butane blended into gasoline downstream of the refinery are contained in 40 CFR 80.82. The requirements for pentane blended into gasoline downstream of the refinery are contained in 40 CFR 80.85 and 80.86.

[129] The proposed RVP compliance tool is discussed in section IV.F.3 of this preamble.

[130] The requirements for DFE are contained in 40 CFR 80.1610.

[131] ASTM D8011–16, ''Standard Specification for Natural Gasoline as a Blendstock in Ethanol Fuel Blends or as a Denaturant for Ethanol Fuel.'' See table X1.2. The use of natural gasoline grade EFB2 as an E51–83 blendstock in the ASTM standard assumes the concurrent use of DFE meeting the California's sulfur and benzene specifications (10 ppm sulfur and 0.06 volume percent benzene). This would ensure a level of control of EFF sulfur content consistent with the requirements under the EPA's Tier 2 gasoline sulfur program.

sulfur was not introduced as a by-product of the production process.

Ethanol producers stated that including such additional grades of DFE and natural gasoline EFF blendstock would allow access to a larger volume of natural gasoline for blending into EFF. This approach would necessitate additional product segregation, PTD, reporting, and recordkeeping requirements to ensure that the different grades of certified natural gasoline were used under the appropriate circumstances. For example, all parties in the production and distribution system would need to segregate and keep records on the various grades of certified natural gasoline they handle and maintain PTD records. We request comment on this approach, including what standards would be appropriate for the additional grades of DFE and natural gasoline EFF blendstock discussed above, and the means of simplifying its implementation while ensuring enforceability.

8. Exemptions From EFF Requirements

The following paragraphs discuss several provisions and exemptions from the proposed EFF standards in special circumstances.

a. EFF Used in Military Applications

Due to national security considerations, some of the EPA's existing regulations allow the military to request and receive National Security Exemptions (NSEs) for vehicles, engines, and equipment from emissions regulations if the operational requirements for such vehicles, engines, or equipment warrant such an exemption. In our diesel fuel program and the Tier 2 and Tier 3 gasoline sulfur programs, we provide an exemption for fuel used in tactical military vehicles and nonroad engines and equipment with a NSE from the vehicle and engine emissions standards. Fuel used in these applications would also be exempt if it is used in tactical military vehicles, engines, or equipment that are not covered by an NSE but, for national security reasons (such as the need to be ready for immediate deployment overseas), need to be fueled on the same fuel as those with an NSE. We are proposing to extend this exemption to EFF as well.

b. EFF Used in Research, Development, and Testing

Similar to existing EPA fuels programs, we are proposing to allow for requests for an exemption from the EFF standards for EFF used for research, development, and testing purposes (''R&D exemption''). We recognize that there may be legitimate research programs that require the use of EFF with benzene, sulfur, or RVP levels greater than those allowed under the proposed EFF requirements. Thus, we are proposing provisions for obtaining an exemption from the prohibition against persons producing, distributing, transporting, storing, selling, or dispensing EFF that does not meet the EFF standards, where such fuel is necessary to conduct a research, development, or testing program.

Parties seeking an R&D exemption would be required to submit an application for exemption to the EPA that describes the purpose and scope of the program, and the reasons why the noncompliant EFF is necessary. Upon presentation of the required information, an exemption could be granted at the discretion of the EPA, with the condition that the EPA could withdraw the exemption in the event the EPA determines the exemption is not justified. In addition, an exemption based on false or inaccurate information would be considered void *ab initio.* EFF subject to an exemption would be exempt from certain provisions of this rule, including the sulfur standards, provided certain requirements are met. These requirements include the segregation of the exempt EFF from non-exempt EFF, identification of the exempt EFF on PTDs, and pump labeling.

c. EFF for Export

EFF produced for export, and that is actually exported for use in a foreign country, would be considered exempt from the fuel content standards and other requirements of the proposed EFF program. In order to exclude exported EFF, refiners would have to retain records to demonstrate that the EFF was exported. Such EFF would have to be designated by the EFF refiner for export, and the PTD would have to state that the EFF is for ''export only;'' otherwise, the EFF would be considered as intended for use in the U.S. and subject to the proposed EFF standards. EFF intended for export would be required to be segregated from all EFF intended for use in the U.S. Distributing or dispensing such fuel for domestic use would be illegal.

d. California EFF

The current State of California requirements for EFF do not parallel those we are proposing for EFF.[132] California defines E85 as containing a minimum ethanol content of 79 volume percent ethanol as opposed to the 51 volume percent minimum set by ASTM.[133] The quality of E85 in California is controlled by narrow restrictions on the blendstocks that may be used to blend E85: California compliant gasoline and DFE. Natural gasoline is not currently allowed as an E85 blendstock in California. Beyond this, California has a maximum 8.7 psi RVP requirement and a 40 ppm maximum sulfur standard for E85. California currently does not have specific regulations for E16–78 ethanol blends. Hence, E16–78 blends are currently prohibited for sale in California.

We are proposing to exempt California EFF from the requirements in this proposal provided that California EFF is segregated from federally compliant EFF, and PTD and recordkeeping requirements are observed for California EFF. These proposed requirements are similar to those associated with the current exemption from federal sulfur standards for California diesel fuel that meets California diesel fuel standard. We believe that it is appropriate to exempt California EFF from the requirements in this proposal to allow California the latitude to regulate EFF in a manner that is consistent with the state's unique air quality needs and the requirements under the state's Low Carbon Fuel Standard (LCFS) program.[134] We also understand that California is considering amending the sulfur and RVP specifications for E85 and implementing specifications for E16–78 ethanol blends.

e. Other Special Provisions and Potential Exemptions

Additionally, in existing EPA fuels programs we have included exemptions for racing fuel and for fuel used in the U.S. territories of Guam, American Samoa, and the Northern Mariana Islands. We have included these same exemptions for the proposed EFF requirements and request comment on whether or not such exemptions would be needed for this program.

D. Certification of Ethanol Flex Fuel

All producers or importers of EFF are considered EFF refiners, and thus responsible for demonstrating that the EFF blends they produce or import meet EPA quality requirements. This proposal contains three options under

[132] The California regulations for E85 are contained in 13 Code of California Regulations (CCR) 2292.4.

[133] ASTM D5798–15 ''Standard Specification for Ethanol Fuel Blends for Flexible-Fuel Automotive Spark-Ignition Engines.''

[134] The California LCFS regulations are contained in Cal Code Regs. tit.17, § 95480.

which EFF refiners could demonstrate compliance with the proposed EFF quality requirements (*i.e.,* ''certify''), which are tailored to the party's ability to affect fuel quality. Given the potential challenges associated with batch sampling, testing, and reporting for the relatively small batches of EFF typically produced, we are proposing options with compliance demonstration requirements that are commensurate with the party's ability to affect EFF quality. These options are further discussed below.

1. EFF Full-Refiner Certification Option

Under the proposed EFF full-refiner option, refiners and importers of EFF blends could use certified and uncertified natural gasoline ethanol flex fuel blendstock, certified gasoline, BOBs, DFE, and undenatured ethanol as EFF blendstocks,[135] provided that they conduct per-batch sulfur, benzene, and RVP testing to demonstrate compliance with the proposed standards. The requirements under this option parallel those for a gasoline refiner, and we expect that producers would only take on the regulatory burden under this option if the cost advantages that accompany the additional blending flexibility justify the added cost of demonstrating compliance.

EFF full-refiners would be required to register each facility, provide annual reports on the EFF produced, issue compliant PTDs for each EFF batch, and maintain records to demonstrate compliance. As part of the proposed annual reporting requirement, EFF full-refiners would be required to certify that the EFF they produced or imported is compliant with the proposed CHONS requirement in addition to providing batch test data to demonstrate compliance with the other proposed quality requirements. EFF full-refiners would have complete responsibility to demonstrate compliance of the uncertified natural gasoline they use as an EFF blendstock with the proposed requirements. To support that the uncertified natural gasoline is CHONS, EFF full-refiners would be required to maintain records to demonstrate the uncertified natural gasoline blendstock used was sourced only from processing units at natural gas processing plants or crude oil refineries and that no non-CHONS additives were added.[136] Such records could be bills of lading from the natural gasoline supplier. EFF full-refiners would also be required to maintain records to demonstrate that the natural gasoline used met the proposed maximum T90, final boiling point, and RVP specifications to ensure that high boiling point hydrocarbon contaminants and an unrepresentative fraction of light boiling point hydrocarbons are not present.[137] Such records could be from testing of the natural gasoline performed at the EFF full-refinery, or of test results provided by the natural gasoline supplier.

We are proposing that EFF full-refiners would be the only party that could designate natural gasoline as uncertified natural gasoline EFF blendstock and that uncertified natural gasoline blendstock could not be transferred to another party. EFF full-refiners could use bills of lading and certificates of analysis from their natural gasoline supplier to help demonstrate compliance with the requirements for uncertified natural gasoline EFF blendstock. Therefore, we believe that there is no practical reason to allow an entity upstream of an EFF full-refinery to designate natural gasoline as uncertified natural gasoline EFF blendstock or for natural gasoline designated as uncertified natural gasoline EFF blendstock to be transferred to another party.

We are proposing that EFF batch certification testing would be conducted on a ''certification tank'' of EFF where individual samples are drawn from the top, middle, and bottom of the tank to ensure that the test results are representative, consistent with existing gasoline tank sampling requirements.[138] We request comment on what additional requirements might be needed to assure that samples are collected from a homogenous batch, and to limit stratification in the storage tank from which EFF is drawn for testing. We are also requesting comment on whether the calculative RVP compliance tool discussed below for use by EFF bulk blender-refiners could also be used by EFF full-refiners in place of RVP testing to demonstrate compliance with the proposed EFF RVP requirements.

For EFF full-refiners that are also alcohol fuel plants under the Alcohol and Tobacco Tax and Trade Bureau (TTB) regulations, the addition of at least two volume percent uncertified natural gasoline blendstock would result in distilled spirits that are unfit for beverage use. As a result, unlike other EFF refiners, EFF full-refiners have the option to blend in uncertified natural gasoline blendstock to accomplish EFF blending and denaturing of ethanol in one step. As prescribed in 26 U.S.C. 5181, when the distilled spirits are produced under the statutory and regulatory provisions for fuel use and are being withdrawn exclusively for fuel use the fuel alcohol is withdrawn free of tax.[139] For EFF full-refiners that are distilled spirit plants, they also may withdraw ethanol tax free when it has been completely denatured for any lawful purpose, including use as fuel alcohol. Completely denatured alcohol is created by adding 2 gallons or more of denaturant to each 100 gallons of undenatured ethanol (*i.e.,* resulting in a minimum denaturant concentration of approximately 1.96 volume percent).[140] In consulting with the TTB, we have confirmed that the addition of more than 1.96 volume percent denaturant, such as uncertified natural gasoline blendstock at the proposed maximum level (*i.e.,* 30 volume percent) would still allow the distilled spirit plant to withdraw fuel alcohol tax free.

While we anticipate that most current E85 blenders would use the following EFF bulk blender-refiner option, ethanol producers have expressed interest in this EFF full-refiner option. We understand that the proposed EFF certification tank requirements are not well suited to the existing EFF production methods at ethanol production plants where the various component blendstocks are mixed at set ratios via in-line blending to produce EFF as it is pumped into tank trucks or rail cars for downstream delivery. Therefore, we are requesting comment on alternatives to the proposed certification tank approach to streamline compliance for ethanol producers that wish to take advantage of the EFF full-refiner option, which would still be able to be used to ensure compliance.

Under one such alternative, a ''hand blend'' option, a representative sample of EFF at a given blend ratio would be made up from representative samples of the individual EFF blendstocks. To create a representative sample of each

[135] Allowing the use of undenatured ethanol as an EFF blendstock would allow ethanol producers to meet the Alcohol and Tobacco Tax and Trade Bureau (TTB) ethanol denaturant requirements in the same blending operation used to produce EFF, rather than force the ethanol to be denatured in a separate step. This might also allow for additional flexibility in the quality of the natural gasoline that might be used as a blendstock.

[136] The natural gasoline must have received some processing at a natural gas processing plant or crude oil refinery, such as in a distillation tower and/or desulfurization unit.

[137] See section IV.C.7 of this preamble.

[138] Previously certified EFF could be used as a blend component to produce new certified batches of EFF provided that the newly certified batch of EFF was sampled and tested per the proposed requirements. We anticipate that this would be the typical practice for complying with the tank heel of previously certified EFF that is difficult to remove from the certification tank.

[139] See 27 CFR part 19.

[140] See 27 CFR 19.746.

EFF blendstock, individual samples would be drawn from the top, middle, and bottom of the blendstock tank to ensure that the test results are representative. Testing would be conducted on the representative EFF sample to demonstrate compliance. These test results would be valid for all batches produced at the same blend ratio as long as no new product was added to the tanks from which the EFF blendstocks are drawn. As an additional compliance assurance measure we might require that periodic samples of the blended EFF be retained and later tested for compliance. One option that we request comment on would have a sample of blended EFF taken once for every 250,000 gallons of EFF produced or once every three months, whichever is more frequent. The proposed EFF retail fuel survey requirements would provide additional assurance that EFF quality was being maintained.[141] However, we are not proposing the hand blend option discussed above due to concerns that it might allow for an unacceptable variability in EFF composition. Variability in the composition of EFF production batches compared to such a hand blend could arise if the blend ratios of the different blendstocks did not remain constant. We request comment on what additional provisions might be appropriate to ensure a consistent level of EFF quality while providing a streamlined means of compliance demonstration under the EFF full-refiner option.

2. EFF Bulk Blender-Refiner Certification Option

Much of the E51–83 is currently made at petroleum terminals and ethanol production facilities by mixing blendstocks in prescribed ratios via in-line blending as the fuel is delivered into tanker trucks for delivery to retail stations. We anticipate the vast majority of E51–83 will continue to be made by such bulk blenders at gasoline terminals and ethanol plants. The small batch size and timing constraints when E51–83 is made as the product is dispensed into a tank truck for delivery to retail and WPCs facilities would likely make the per-batch EFF sulfur and benzene testing requirements under the EFF full-refiner option impractical for EFF bulk blender-refiners. There is also no clear technical path to facilitate per-batch RVP testing under such circumstances since such testing could introduce unacceptable delay during tank trucks picking up EFF at product terminals. Therefore, we are proposing the EFF bulk blender-refiner certification option under which bulk blenders could avoid per-batch testing by using only previously certified blendstocks, where much of the compliance demonstration has been accomplished by the blendstock producer. The only blend components that such bulk blenders can currently use while being assured of compliance with the existing sub-sim requirement for E51–83 are gasoline, BOBs, and DFE. We are proposing to expand this list of blend components to allow for increased EFF production.

We are proposing that to be treated as an EFF bulk blender-refiner, bulk blenders would be limited to using the following blendstocks that had been certified by their producers as meeting EPA quality requirements to produce EFF: DFE, gasoline, BOBs, and certified natural gasoline EFF blendstock.[142] We are proposing that an EFF bulk blender-refiner that is also an ethanol producer could also use undenatured ethanol as an EFF blendstock similar to under the EFF full-refiner option. In other words, they could not use uncertified natural gasoline EFF blendstock without having to meet the EFF full-refiner option requirements.

EFF bulk blender-refiners that continue to use only DFE and certified gasoline/BOBs that do not take advantage of the 1 psi waiver for E10 to make E51–83 would have only minimal additional regulatory burdens under this proposal associated with registration, annual reporting, recordkeeping, PTDs, and participation in the proposed EFF quality survey. EFF bulk blender-refiners that choose to take advantage of the proposed new blending flexibility to use natural gasoline and those that use E10/BOBs that take advantage of the 1 psi waiver for E10 would be subject to additional compliance demonstration requirements, potentially including per-batch RVP testing consistent with their ability to affect EFF quality. However, bulk blenders would only choose to accept the additional regulatory burden that accompanies the increased blending flexibility if there was an economic advantage to do so. We anticipate that the opportunity to use relatively low cost natural gasoline as an EFF blendstock could result in a significant cost savings in the production of EFF, while minimizing the regulatory burden and ensuring that EFF quality supports the EPA's environmental goals.

EFF bulk blender-refiners could demonstrate compliance with the proposed sulfur and benzene specifications and CHONS requirement by maintaining PTDs showing that they used only the approved blendstocks. Since the sulfur and benzene content of blended fuels is directly proportional to the sulfur and benzene content in the blendstocks used and bulk blenders would be limited to using certified blendstocks to manufacture EFF that meet applicable average and cap sulfur and benzene standards, we could be assured of compliance with the sulfur and benzene specifications for EFF without requiring per-batch testing.

However, the nonlinearity in the RVP of ethanol blended fuels means that additional provisions would be needed for EFF bulk blender-refiners to demonstrate compliance with the proposed maximum RVP standards for EFF from May 1 through September 15 for parties upstream of retail and WPC facilities. We are proposing several paths that EFF bulk blender-refiners could use to demonstrate compliance with the proposed maximum RVP requirements:[143]

- EFF bulk blender-refiners that use only gasoline and BOBs that are compliant with the applicable regional RVP specifications without benefit of the 1 psi waiver for E10 could demonstrate compliance simply by maintaining the PTDs for the blendstocks used.
- EFF bulk blender-refiners that use certified natural gasoline EFF blendstock (in addition to gasoline/BOBs) or those that use gasoline/BOBs that take advantage of the 1 psi waiver for E10 as EFF hydrocarbon blendstocks could demonstrate compliance by either:
  - Conducting per-batch RVP testing, or
  - Using an RVP compliance tool.[144]

To the extent per-batch RVP testing is used rather than the RVP compliance tool, we request comment on the potential to allow for less frequent testing provided that there was no change in the composition of the blendstocks or the blending recipe. Some parties may wish to perform per-

[141] The proposed EFF quality survey requirements are discussed in section IV.F.9 of this preamble.

[142] We are also proposing that EFF bulk blender-refiners would be limited to using a maximum of 30 volume percent of certified natural gasoline to produce EFF and that the addition of additives to certified natural gasoline EFF blendstock would be prohibited.

[143] In their annual reports to the EPA, EFF bulk blender-refiners would be required to identify the method used to demonstrate compliance for each batch with detailed supporting materials including and provide information on the blendstocks used, the inputs to the RVP compliance tool if used, and the results of each RVP test if per-batch testing if conducted.

[144] The proposed RVP compliance tool is discussed in section IV.F.3 of this preamble.

batch testing because early indications from the EPA's test program to evaluate the performance of the RVP compliance tool may slightly overestimate RVP.[145] Hence, the use of per-batch testing could allow the use of slightly more natural gasoline while remaining compliant with the proposed RVP requirements.

We are proposing that EFF bulk blender-refiners would be required to register with the EPA and provide annual reports on the EFF they produce. We expect that most EFF bulk blender-refiners would already be registered with the EPA as gasoline oxygenate blenders or ethanol producers. EFF bulk blender-refiners would also be required to provide PTDs for each batch of EFF they produce. The issuance of PTDs by fuel producers is common business practice.

3. EFF Blender Pump-Refiner Certification Option

Blender pumps produce a fuel with a particular ethanol content by drawing from two ''parent blends'' in different tanks at specified volume ratios. The blender pump can produce a mixture with an ethanol content anywhere between that exhibited by the parent blends in the two tanks. In most current cases, this involves E10 gasoline and E85. This proposal would replace the current gasoline refiner requirements for producers of E16–50 at blender pumps with requirements for the parent blends that may be used, including E51–83.

The properties of the blends produced are determined by those of the parent blends. Since sulfur, benzene, and non-CHONS elements blend linearly, compliance of the parent blends with the proposed specifications for these fuel parameters would ensure the compliance of blends produced at blender pumps. In the context of the average standards for benzene and sulfur that apply to gasoline, the benzene and sulfur concentrations of the EFF produced will vary, but should not increase on average. However, the nature of blending hydrocarbon fuels with ethanol is such that the RVP of the blend exhibits a highly nonlinear response. That is, the RVP of a blend of two fuels with two different ethanol contents diverges significantly from what one would predict based on a volume-weighted averaging of the RVPs of the two fuels. We conducted RVP modeling to evaluate the RVP of blends made at blender pumps using the parent blends that are commonly used. The results of this modeling indicate the use of the parent blends commonly used at blender pumps would result in mid-level ethanol blends that are expected to be within the evaporative emissions control capacity of FFVs.[146] Therefore, we are proposing that EFF blender pump-refiners could demonstrate compliance with the proposed EFF sulfur, benzene, RVP, and CHONS requirements by maintaining PTDs to demonstrate that only certified gasoline and EFF were used as parent blends and participate in the proposed EFF quality survey. Records of the parent blends used are already kept as part of common business practice and we expect that in the vast majority of cases no changes would need to be made to the type of parent blends used at blender pumps. These requirements represent a substantial reduction in the burden of compliance for blender pump operators compared to the current per-batch testing and reporting requirements for E16–50 gasoline refiners while continuing to safeguard the environmental performance of E16–50.

We expect that E51–83 would be the EFF parent blend of choice at blender pumps so that it could be made available for sale, although other EFF blends could be used. We request comment on requiring that E51–83 be the EFF parent blend used at blender pumps. We believe that this limitation could provide additional quality control benefits for blender pumps while not removing any meaningful flexibility since using E16–50 as a parent blend is not currently a common practice at blender pumps. The EPA intends to monitor the RVP of blends produced at blender pumps and may propose additional controls in a later action if warranted.[147] EFF blender pump-refiners would also be required to perform quality assurance practices typical of gasoline retailers to limit contamination. For example, EFF retailers would also be required to ensure that their retail tanks are turned over each year from wintertime EFF (to which RVP requirements do not apply) to summertime EFF that is compliant with the proposed RVP requirements.

Some blender pump operators have expressed interest in using DFE as a parent blend to produce EFF. Allowing the use of DFE as a parent blend component at blender pumps would provide additional flexibility to industry while meeting the EPA's environmental goals. The use of DFE as a parent blend could facilitate the direct marketing of DFE from ethanol plants to fuel retailers and allow retailers to separate RINs from DFE as it is used to create motor vehicle fuel. These practices could have the potential to reduce the retail cost of EFF. The use of DFE as a parent blend could also simplify the adjustment of blender pumps to produce various blend ratios of EFF compared to the use of EFF that may vary in ethanol content seasonally. When EFF is used as a parent blend, blender pumps must be readjusted each time a batch of EFF parent blend is delivered with a different ethanol blend ratio to ensure accuracy in the ethanol concentration of the blends produced at the blender pump.[148] This readjustment should not be necessary when DFE is used as a parent blend.

However, storing DFE at blender pump facilities could result in increased fire safety concerns.[149] Therefore, we are not proposing to allow DFE to be used at as a parent blend at blender pumps. The headspace in DFE storage tanks is flammable at nearly all ambient temperatures, whereas there is substantially less likelihood of this being the case for E83 and lower ethanol content blends. Industry is developing recommendations on how to mitigate the increased fire safety concerns associated with storing DFE at retail stations. Such recommendations may lead to fire safety codes regarding storing DFE at retail that would ultimately be enforced by local fire marshals. The EPA may reconsider allowing DFE to be used as a parent blend at blender pumps when appropriate safety codes regarding storing DFE at retail have been developed and implemented. At the same time, we understand that this practice may already be occurring in a limited number of retail stations. Consequently, we request comment on allowing DFE to be used as a parent blend at blender pumps.

[145] The EPA expects to have the results of the test program to confirm the utility of the RVP compliance tool for EFF blends made with natural gasoline in time to inform the final rule to follow this proposal.

[146] A discussion of the proposed volatility requirements for EFF blends and the underlying RVP modeling is discussed in section IV.C.3 of this preamble.

[147] Such monitoring would be accomplished through the proposed third-party independent survey of the RVP of EFF at blender pumps.

[148] We anticipate that blender pump operators may contract with their supplier to receive a single EFF blend year-round (*e.g.,* E70) to avoid the need to recalibrate their blender pumps or arrange to receive a single summer time blend and a single wintertime blend to limit the number of recalibrations needed.

[149] Coordinating Research Council (CRC), Project No. CM–138–12–1. ''A Risk Analysis/Hazard Assessment of High Ethanol Content Fuels at Service Stations.'' June 2014.

4. Summary of the Blendstock Requirements Under the EFF Certification Options and Other Proposed Provisions for EFF

A summary of the blendstock requirements under the three proposed EFF certification options is contained in Table IV.D.4–1 below.

TABLE IV.D.4–1—SUMMARY OF BLENDSTOCK REQUIREMENTS UNDER THE THREE EFF CERTIFICATION OPTIONS

EFF certification option	Blendstocks that may be used
EFF Full-Refiner	Gasoline, BOBs, Certified Natural Gasoline EFF Blendstock, Uncertified Natural Gasoline EFF Blendstock, DFE, Undenatured Ethanol.*
EFF Bulk Blender-Refiner	Gasoline, BOBs, Certified Natural Gasoline EFF Blendstock, DFE, Undenatured Ethanol.*
EFF Blender Pump-Refiner	Gasoline, EFF.

* Must be an ethanol producer to use undenatured ethanol as an EFF blendstock.

We are proposing that once EFF has been certified as meeting the proposed requirements, no additional blendstocks could be added downstream.[150] For example, natural gasoline could not be added to previously certified EFF. Allowing the addition of blendstocks to previously certified EFF would add substantial complexity to the program and introduce additional opportunities for compliance issues to arise. We believe that precluding the addition of additional blendstocks to previously certified EFF would not interfere with the legitimate production of EFF.

We are proposing a prohibition on commingling batches of EFF batches downstream of the production facility except at EFF blender pump-refiner facilities and retail/WPC facilities that dispense EFF from dedicated dispensers.[151] We believe that this would help prevent the introduction of potential errors in the ethanol content of EFF reported on the PTD. Accurate information on the ethanol content of EFF is important to blender pump-refiners in calibrating their dispensers to produce EFF blends (and E15) of appropriate ethanol content. We believe that this prohibition would not be a practical constraint on EFF distributors, since EFF is primarily distributed by tank truck to retail and WPC facilities without any intervening storage facility. We request comment on the extent to which EFF may be distributed by rail car or other means with intervening storage before delivery to retail/WPC facilities. To the extent that EFF may be distributed in this manner, the proposed prohibition on commingling of EFF batches discussed above could complicate the storage of EFF at facilities between the producer and retail/WPC facility. If this is a concern, we request comment on alternative means to ensure that error in the ethanol content of EFF is not introduced by commingling of EFF batches downstream of the producer.

E. Requirements for E15 Gasoline Blender Pump-Refiners

Fuel retailers and WPCs that make E15 at blender pumps using E85 as a parent blend are currently subject to all of the requirements that apply to refiners producing gasoline from crude oil, including registration, reporting, and per-batch testing. This is due to the fact that such blender pump operators are mixing non-gasoline (E85) with gasoline (E0 or E10). However, the application of these requirements to fuel retailers and WPCs is impractical. For example, it is infeasible for fuel retailers and WPCs to conduct laboratory tests on each batch of E15 produced (*i.e.,* each vehicle fill-up) to demonstrate compliance with the applicable sulfur, benzene, and RVP requirements. Even if blender pump operators could test every batch, requiring per-batch testing is inconsistent with their limited ability to impact the quality of the gasoline they produce, which is governed by the parent blends used.

Since the proposed requirements for EFF parallel those for gasoline, the use of EFF that meets the proposed requirements as a parent blend with compliant gasoline as the other parent blend would ensure that E15 made at blender pumps is compliant with the gasoline sulfur, benzene, and CHONS requirements. This is due to the linear blending characteristics of fuel sulfur, benzene, and CHONS content. The situation is analogous to commingling two previously certified gasolines, which does not entail any additional compliance demonstration requirements.

However, the non-linear RVP blending characteristics for gasoline-ethanol blends pose unique issues regarding RVP compliance for E15 made at blender pumps from June 1 through September 15 when gasoline RVP requirements apply at retail and WPCs. Blenders of E15 in conventional gasoline areas (both at blender pumps and at terminals) have typically not been able to make E15 that is compliant with summertime RVP requirements due to the unavailability of sub-RVP blendstocks. The gasoline blendstocks that are available in conventional gasoline areas are typically formulated to produce E10 with the 1 psi RVP waiver since it has not been economical for lower RVP gasoline blendstocks to also be made available that would be suitable to make E15.

We are proposing that from September 16 through May 31, all E15 gasoline blender pump-refiners, regardless of where they are located, could demonstrate compliance with the gasoline refiner requirements using the same approach that we are proposing for EFF blender pump-refiners—by maintaining PTDs that show that the parent blends used to make E15 (*i.e.,* E0 or E10, and EFF) were certified for sale upstream of the blender pump-refiner. Such gasoline blender pump-refiners would also be required to maintain records of their quality control program, including those from the periodic calibration of the blender pump. These proposed requirements would be consistent with common business practices at fuel retail, and would ensure that the E15 produced by a gasoline blender pump-refiner for use from September 16 through May 31 complies with the sulfur, benzene, and CHONS requirements.

We are proposing that EFF blender pump-refiners could demonstrate compliance with the proposed RVP requirements for EFF from June 1 through September 15 by maintaining PTDs that show the parent blends used were certified upstream of the blender pump-refiner as meeting local RVP

[150] EFF additives could still be added downstream as needed.

[151] A dedicated EFF dispenser provides only a single EFF blend (*e.g.,* ''E85'' or E51–83).

requirements. We based this proposed approach to EFF production at blender pumps on RVP modeling showing that the resulting EFF blends produced at blender pumps would not exceed the evaporative emissions control capability of FFVs (*i.e.,* 10 psi RVP). Due to the more stringent vehicle evaporative certification requirements for FFVs, they can operate on a fuel with volatility 1 psi higher than the maximum volatility required for conventional gasoline vehicles while maintaining evaporative emissions control performance equivalent to that of conventional gasoline vehicles.

A similar approach for E15 can be used in many areas depending on whether the 1 psi waiver for E10 applies.[152] In conventional gasoline areas where the 1 psi waiver for E10 does not apply, E15 made at blender pumps using EFF that meets the proposed RVP requirements and E10 as parent blends would be compliant with the applicable gasoline RVP standard.[153] In RFG areas, E15 made with EFF that meets the proposed RVP standard and E10 that meets the RFG VOC performance standard would also be compliant with the RFG VOC performance standard. This is because the proposed 7.0 psi RVP standard for EFF in RFG areas is consistent with the RFG VOC performance standard for gasoline.[154] Therefore, we are proposing that in conventional gasoline areas where the 1 psi waiver does not apply and in RFG areas, blender pump-refiners of E15 could demonstrate compliance with the volatility requirements for E15 from June 1 through September 15 by keeping PTDs for the E10 and EFF used as parent blends to show that they were certified upstream of the blender pump-refiner as meeting the local requirements.

However, in conventional gasoline areas where the 1 psi waiver does apply, E15 made at blender pumps using E10 and EFF that meets the proposed RVP requirements would not be compliant with the applicable RVP requirements for gasoline. Therefore, in conventional gasoline areas where the 1 psi waiver for E10 applies, we are not proposing to allow blender pump-refiners of E15 that use E10 as a parent blend to meet their gasoline refiner requirements using PTDs for the parent blends used from June 1 through September 15.

In all areas, E15 produced at blender pumps using E0 and EFF meeting the applicable RVP requirements would not be in compliance with the applicable RVP requirements for E15. Therefore, we are not proposing to allow blender pump-refiners of E15 that use E0 as a parent blend to meet their gasoline refiner requirements from June 1 through September 15 by using PTDs for the parent blends used. Our proposal regarding the demonstration of compliance of blender pump-refiners of E15 with the RVP requirements for E15 is summarized in the Table IV.E–1 below.

TABLE IV.E–1—DEMONSTRATION OF COMPLIANCE WITH E15 RVP REQUIREMENTS AT BLENDER PUMPS

Area	Parent blends	E15 RVP	Demonstrate compliance using PTDs for parent blends?
RFG	E10[1] & EFF (7 psi)	Compliant with RFG VOC requirements[1].	Yes.
	E0[1 2] & EFF (7 psi)	Not compliant with RFG VOC requirements.	No.
CG Areas without the 1 psi waiver for E10.	E10 (9 psi/7.8 psi)[3] & EFF(9 psi/7.8 psi).	<9 psi/7.8 psi	Yes.
	E0 (9 psi/7.8 psi) & EFF (9 psi/7.8 psi).	>9 psi/7.8 psi	No.
CG Areas with the 1 psi waiver for E10.	E10 (10 psi/8.8 psi)[4] & EFF (9 psi/7.8 psi).	>9 psi/7.8 psi	No.
	E0 (9 psi/7.8 psi) & EFF (9 psi/7.8 psi).	>9 psi/7.8 psi	No.

[1] RFG meets a VOC performance standard as opposed to a per-gallon RVP cap.
[2] Refiners currently formulate all RFG for the downstream addition of 10 volume percent ethanol.
[3] Some CG areas have a 9.0 psi standard for gasoline and proposed 9.0 psi standard for EFF produced upstream of retail/WPCs. Other CG areas have a 7.8 psi standard for gasoline and proposed 7.8 psi standard for EFF produced upstream of retail/WPCs.
[4] Reflects 1 psi waiver for E10.

As a result of the difficulty blenders face in locating sub-RVP blendstocks for use in making E15 that is compliant with the gasoline RVP requirements in areas where the 1 psi waiver for E10 applies, the EPA received requests for clarification about whether relabeling E15 as for use only in FFVs would exempt E15 from gasoline RVP requirements from June 1 through September 15. All gasoline, including E15, is subject to all of the requirements applicable to gasoline because of its formulation, not because of its end use. These requirements cannot be circumvented by relabeling. Allowing a fuel to be exempted from fuel quality requirements simply based on a statement of its intended use would undermine the EPA's ability to assure compliance with fuel quality requirements. In situations where E15 blenders could not locate sub-RVP blendstocks to facilitate compliance with the applicable gasoline RVP requirements, they could adjust the ethanol blend ratio to produce an EFF blend such as E20 from June 1 through September 15. Such producers of E20 or other EFF blends would be compliant with the proposed RVP requirements for EFF if they observed the proposed parent blend requirements for EFF blender pump-refiners. Such E20 producers would also be required to comply with the other proposed requirements for EFF blender pump-refiners and to appropriately label the fuel.

[152] The 1 psi waiver is applicable in most conventional gasoline areas, but does not apply in RFG areas where gasoline volatility is governed by a VOC performance standard rather than a per-gallon RVP cap.

[153] For a discussion of the volatility of E15 and E10 made at blender pumps, see the memorandum, ''Volatility of Ethanol Blends Made at Blender Pumps,'' available in the docket for this action.

[154] See the memorandum, ''Volatility of Reformulated Gasoline,'' available in the docket for this action.

Some retailers may also be interested in producing E10 using E0 and EFF as parent blends at blender pumps. We seek comment on the need for, and means of, facilitating this practice without triggering the batch sampling testing requirements that apply to a gasoline refiner. The means of assuring compliance of E10 made at blender pumps using E0 and EFF with the sulfur, benzene, and CHONS requirements for gasoline should parallel those proposed above for blender pump-refiners of E15. However, because of the limited blending accuracy for blender pumps, we are not confident of the means to assure compliance with the gasoline volatility requirements for E10, particularly in areas where the 1 psi waiver for E10 does not apply, as well as in areas where the waiver does apply.[155]

F. Compliance Provisions

1. Registration, Reporting, and Recordkeeping Requirements

Registration, reporting, and recordkeeping requirements are necessary components to ensure that any fuels program is effectively implemented. This proposal includes registration, reporting, and recordkeeping requirements for each class of party tailored to their specific activities related to the production of EFF and E15 produced at blender pumps.

a. Registration Requirements

We are proposing that EFF full-refiners and importers, EFF bulk blender-refiners, and certified natural gasoline EFF blendstock refiners and importers register with the EPA prior to the production of EFF or natural gasoline EFF blendstock. Since downstream parties (*e.g.,* EFF bulk blender-refiners and blender pump-refiners) need upstream parties (*e.g.,* natural gasoline EFF blendstock refiners and EFF full-refiners) to comply with the proposed EFF quality standards to practicably comply with their individual requirements, we are proposing staggered initial registration deadlines to facilitate the cascading nature of EFF fuel quality standards implementation.

For registration, we are proposing to use the same basic forms that previous fuels programs have used. These forms are well-known in the regulated community and are simple to fill out. With the exception of certified natural gasoline EFF blendstock producers, we anticipate that most parties will already be registered under our existing fuel standards. Upon receipt of a completed registration form, the EPA would issue a unique 4-digit company identification number and a unique 5-digit facility identification number. As with existing fuels programs, these numbers would be required for all reports submitted to the EPA and for applicable PTDs.

Registrations would not expire and would not have to be renewed; however, we are proposing that registered parties would be responsible for notifying us of any change to their company or facility information.

An entity's registration would include a corporate name and address (including the name, telephone number, and email address of a corporate contact); and, for each facility operated by the entity:

- Type of facility (*e.g.,* EFF full-refinery, EFF bulk blender-refiner facility, certified natural gasoline EFF blendstock refinery facility)
  - Registrations for certified natural gasoline EFF blendstock refineries would be limited to natural gas processing plants and crude oil refineries.
- Facility name.
- Physical location.
- Contact name, telephone number, and email address.

These proposed registration requirements would be similar to those currently required for gasoline refiners and importers. The EPA has had success with these requirements and believes that they are appropriate for parties involved in the manufacture of EFF. However, there may be some additional registration requirements that would prove useful to ensure that parties involved in the manufacture of EFF make compliant fuels. Although we are not proposing any additional registration requirements on EFF refiners and importers, EFF bulk blender-refiners, and certified natural gasoline EFF blendstock refiners and importers compared to what we have historically required of gasoline or diesel refiners and importers, we seek comment on whether there are any other registration requirements that we should impose on these parties.

b. Reporting Requirements

We are proposing to require parties involved in the manufacture of EFF to submit annual reports demonstrating their compliance with the EFF standards. Based on our experience with existing gasoline programs, we believe that requiring annual reports containing individual batch data would provide an effective means of monitoring compliance with the EFF standards.

Consistent with other fuel program annual reporting requirements, we are proposing that reports would be due annually on March 31. Since the EFF requirements are different for the proposed three broad categories of parties, there would be different reporting requirements for EFF full-refiners and importers, EFF bulk blender-refiners, and natural gasoline EFF blendstock refiners and importers.

For EFF full-refiners and importers, we are proposing that they submit annual batch level reports with sulfur, benzene, and ethanol content, as well as RVP, consistent with forms and procedures already used by gasoline refiners and importers. EFF full-refiners and importers would also have to demonstrate annual compliance with average sulfur and benzene content standards similar to gasoline refiners and importers. Although we are not proposing to have other fuel parameters reported by batch to the EPA that are currently required to be reported for gasoline (*e.g.,* distillation, aromatics), we seek comment on whether we should require any additional information to be submitted to the EPA by EFF full-refiners and importers.

We are proposing that EFF bulk blender-refiners would be required to submit an annual report that includes the volume, ethanol concentration, and blendstocks used (*e.g.,* certified natural gasoline, E10, BOBs) of each EFF batch. One of the benefits for EFF bulk blender-refiners to utilize certified blendstocks to make EFF versus creating EFF as an EFF full-refiner is that EFF bulk blender-refiners would not have to sample and test their batches of EFF for sulfur, benzene, or RVP. Without this information, it would not make sense to require EFF bulk blender-refiners to report these values. However, the EPA believes that based on our experience with implementation and enforcement of other programs it is still important to have the volumes that are produced reported to us. We seek comment on whether we should require additional reporting requirements on EFF bulk blender-refiners.

Finally, for natural gasoline EFF blendstock refiners and importers, we are proposing similar reporting requirements for those outlined above for EFF full-refiners and importers. Since natural gasoline EFF blendstock refiners and importers would be required to meet per-gallon cap sulfur and benzene requirements, natural gasoline EFF blendstock refiners and importers would also have to report additional information to ensure that

[155] The ethanol content of E10 must be between 9 and 10 volume percent for the 1 psi waiver to apply.

each batch meets the applicable standards. Consistent with other EPA fuels programs, natural gasoline EFF blendstock refiners would need to submit annual batch reports and annual compliance reports. Reporting elements for natural gasoline EFF blendstock refiners' batch reports would be the sulfur content, benzene content, ethanol content, RVP, batch volume, and batch identifying information (*e.g.,* date of production, batch number, etc.) for each batch produced in the compliance year. Annual compliance reports would contain total volume production and certification that all batches produced in the compliance period were compliant with applicable requirements.

Since most of this information is already required of some gasoline refiners, existing reporting forms and procedures for gasoline refiners should also be applicable to natural gasoline EFF blendstock refiners and importers with minor modification. We seek comment on whether we should require any additional reporting from natural gasoline EFF blendstock refiners and importers.

Consistent with existing CBI requirements, all refiners and importers of EFF and natural gasoline EFF blendstock can claim information submitted to the EPA as CBI. Parties making such a claim would be required to follow all reporting guidance and clearly mark the information being claimed as proprietary. The EPA would treat information covered by such a claim in accordance with the regulations at 40 CFR part 2, and other EPA procedures for handling proprietary information.

c. Recordkeeping

Consistent with current EPA fuels programs, we are proposing that EFF full-refiners and importers, EFF bulk blender-refiners, blender pump-refiners, and natural gasoline EFF blendstock refiners and importers would be required to retain all records that demonstrate compliance with applicable EFF and gasoline requirements. We are proposing that all of these parties would also be required to keep records of all bills of lading, PTDs, invoices or other commercial documents relating to gasoline, ethanol, natural gasoline EFF blendstock, or any other blendstock used to make EFF, and records of any quality assurance plans (QAPs). Records would need to be retained for five years consistent with other EPA fuels programs. We are proposing that records would be made available to the EPA on request. We are also proposing that if electronic records are kept, hard copies should be made available upon request.

Since several parties would be subject to different EFF requirements, we are proposing some specific requirements on different individual parties. For blender pump-refiners, we are proposing to require that records related to the calibration of blender pumps be kept. Most, if not all, retail stations are already subject to state weights and measures programs that require the calibration of fuel dispensers to be tested periodically. These calibrations are important to determining whether blender pump-refiner requirements are in fact being met by all gasoline-ethanol blends manufactured through a blender pump. We are not proposing specific calibration requirements for blender pumps because we believe that it is most appropriate for such requirements to be established by state weight and measure programs.

For EFF bulk blender-refiners, the demonstration that a particular batch of EFF would meet appropriate EFF fuel quality standards is based primarily on recordkeeping and QAPs. Therefore, it is paramount that appropriate records be kept and that attest engagement requirements are in place.[156] We seek comment on whether there are any additional recordkeeping requirements that would be appropriate and necessary for the EPA to require of EFF bulk blender-refiners specifically, and other parties more generally, to enhance compliance and enforceability of the EFF requirements.

2. Proposed Sampling, Test Method, and Sample Retention Requirements for Refiners and Importers of EFF and Natural Gasoline EFF Blendstock

We are proposing that refiners and importers utilize the following sampling and test methods for measuring the fuel parameter properties of sulfur, benzene, oxygenate, RVP, 90 percent distillation point, and final boiling point for EFF and natural gasoline EFF blendstock. We are also proposing sample retention requirements for EFF and natural gasoline EFF blendstock. Table IV.F.2–1 below lists the ASTM standard practices that we are proposing.

We are proposing that refiners and importers of EFF and natural gasoline EFF blendstock utilize the following ASTM standard practices when sampling EFF and natural gasoline EFF blendstock. We are proposing that when refiners and importers manually sample EFF and natural gasoline EFF blendstock, they utilize ASTM D4057. We are proposing that when refiners and importers sample EFF and natural gasoline EFF blendstock by an automated sampling method, they utilize ASTM D4177. We are proposing that when refiners and importers sample EFF and natural gasoline EFF blendstock for volatility measurements, they utilize ASTM D5842. Finally, we are proposing that when refiners and importers mix and handle EFF and natural gasoline EFF blendstock for compliance measurements, they utilize ASTM D5854.

We are proposing that EFF full-refiners and importers and natural gasoline EFF blendstock refiners and importers measure sulfur content. Currently our regulations for the measurement of sulfur content in gasoline at 40 CFR 80.46 designates ASTM D2622 as the primary test method. For consistency's sake, we are proposing ASTM D2622 as the designated primary test method for measuring the sulfur content of EFF and natural gasoline EFF blendstock. We are also proposing six alternative test methods for the measurement of sulfur content of EFF and natural gasoline EFF blendstock: ASTM D1266, ASTM D3120, ASTM D5453, ASTM D6920, ASTM D7220, and ASTM D7039, provided that their test results are correlated to ASTM D2622. Of the test methods discussed here for measuring the sulfur content of EFF and natural gasoline EFF blendstock, we believe ASTM D2622 is the most precise test method.

We are also proposing that EFF full-refiners and importers and natural gasoline EFF blendstock refiners and importers measure benzene content. Currently our regulations for the measurement of aromatic content in gasoline at 40 CFR 80.46 designates ASTM D5769 as the primary test method. ASTM D5769 also measures the benzene content of gasoline. For consistency's sake and since ASTM D5769 also measures benzene content, we are proposing ASTM D5769 as the designated primary test method for measuring the benzene content of EFF and natural gasoline EFF blendstock. We are also proposing the allowance of three alternative test methods for the measurement of benzene content of EFF and natural gasoline EFF blendstock: ASTM D3606, ASTM D5580, and ASTM D6730, provided that their test results are correlated to ASTM D5769. Since ASTM D3606 has the potential for interference between ethanol and benzene when ethanol is present in the fuel sample, we do not believe ASTM D3606 is the best candidate to be the designated primary test method for EFF

[156] See section IV.F.5 of this preamble for discussion on attest engagement requirements.

and natural gasoline EFF blendstock compared to ASTM D5769, which lacks the potential for interference issues between benzene and ethanol. The EPA seeks comment on whether to designate only ASTM D5769 for measuring benzene content in gasoline, or whether to add ASTM D5769 as a designated primary test method for benzene in gasoline along with ASTM D3606.

We are also proposing that EFF bulk blender-refiners and blender pump-refiners measure oxygenate content as part of the proposed EFF survey program. Currently our regulations for the measurement of oxygenate content in gasoline at 40 CFR 80.46 designates ASTM D5599 as the primary test method. For consistency's sake, we are proposing to designate ASTM D5599 as the designated primary test method for measuring the oxygenate content of EFF. We are also proposing for the allowance of one alternative test method for oxygenate content measurement of EFF: ASTM D4815, provided that its test results are correlated to ASTM D5599.

We are also proposing that EFF full-refiners and importers, EFF bulk blender-refiners, and natural gasoline EFF blendstock refiners and importers measure RVP. Currently our regulations for the measurement of RVP in gasoline at 40 CFR 80.46 designates ASTM D5191 as the primary test method. For consistency's sake, we are proposing to designate ASTM D5191 as the designated primary test method for measuring the RVP of EFF and natural gasoline EFF blendstock. We are also proposing for the allowance of two alternative test methods for the RVP measurement of EFF and natural gasoline EFF blendstock: ASTM D5482 and ASTM D6378, provided that their test results are correlated to ASTM D5191.

Finally, we are also proposing that natural gasoline EFF blendstock refiners and importers measure the 90 percent distillation point and final boiling point of natural gasoline EFF blendstock. Currently our regulations for the measurement of the distillation point of gasoline at 40 CFR 80.46 designates ASTM D86–12 as the primary test method. For consistency's sake, we are proposing to designate ASTM D86–12 as the designated primary test method for measuring the 90 percent distillation point and final boiling point of natural gasoline EFF blendstock.

All of the test methods discussed here do not have established precision estimates for repeatability or reproducibility that would enable the EPA to propose Performance-Based Measurement System (PBMS) requirements for these analytical test methods. Once these estimates have been established by ASTM, at that time the EPA may propose PBMS requirements for the measurement of sulfur, benzene, oxygenate, RVP, 90 percent distillation point, and final boiling point of EFF and natural gasoline EFF blendstock. We welcome comment on our proposed sampling and test methods.

TABLE IV.F.2–1—ASTM SAMPLING AND DESIGNATED PRIMARY AND ALTERNATIVE ANALYTICAL TEST METHODS FOR EFF AND NATURAL GASOLINE EFF BLENDSTOCK

Fuel parameter	ASTM Analytical standard practice or test method
Standard Practice for Manual Sampling	ASTM D4057–12, entitled, ''Standard Practice for Manual Sampling of Petroleum and Petroleum Products''.
Standard Practice for Automated Sampling	ASTM D4177–95 (Reapproved 2010), entitled, ''Standard Practice for Automatic Sampling of Petroleum and Petroleum Products''.
Standard Practice for Handling of Fuels for Volatility Measurement.	ASTM D5842–14, entitled, ''Standard Practice for Sampling and Handling of Fuels for Volatility Measurement''.
Standard Practice for Mixing and Handling of Liquid Samples of Petroleum and Petroleum Products.	ASTM D5854–96 (Reapproved 2010), entitled, ''Standard Practice for Mixing and Handling of Liquid Samples of Petroleum and Petroleum Products''.
Sulfur (designated primary test method)	ASTM D2622–10, entitled ''Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry''.
Sulfur (alternative test method)	ASTM D1266–13, entitled, ''Sulfur Test Method for Sulfur in Petroleum Products (Lamp Method)''.
Sulfur (alternative test method)	ASTM D3120–08 (Reapproved 2014), entitled, ''Standard Test Method for Trace Quantities of Sulfur in Light Liquid Petroleum Hydrocarbons by Oxidative Microcoulometry''.
Sulfur (alternative test method)	ASTM D5453–12, entitled, ''Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Spark Ignition Engine Fuel, Diesel Engine Fuel, and Engine Oil by Ultraviolet Fluorescence''.
Sulfur (alternative test method)	ASTM D6920–13, entitled, ''Standard Test Method for Total Sulfur in Naphthas, Distillates, Reformulated Gasolines, Diesels, Biodiesels, and Motor Fuels by Oxidative Combustion and Electrochemical Detection''.
Sulfur (alternative test method)	ASTM D7220–12, entitled, ''Standard Test Method for Sulfur in Automotive, Heating, and Jet Fuels by Monochromatic Energy Dispersive X-ray Fluorescence Spectrometry''.
Sulfur (alternative test method)	ASTM D7039–13, entitled, ''Standard Test Method for Sulfur in Gasoline, Diesel Fuel, Jet Fuel, Kerosine, Biodiesel, Biodiesel Blends, and Gasoline-Ethanol Blends by Monochromatic Wavelength Dispersive X-ray Fluorescence Spectrometry''.
Benzene (designated primary test method)	ASTM D5769–10, entitled, ''Standard Test Method for Determination of Benzene, Toluene, and Total Aromatics in Finished Gasolines by Gas Chromatography/Mass Spectrometry''.
Benzene (alternative test method)	ASTM D3606–10, entitled, ''Standard Test Method for Determination of Benzene and Toluene in Finished Motor and Aviation Gasoline by Gas Chromatography''.
Benzene (alternative test method)	ASTM D5580–13, entitled, ''Standard Test Method for Determination of Benzene, Toluene, Ethylbenzene, *p/m*-Xylene, *o*-Xylene, C_9 and Heavier Aromatics, and Total Aromatics in Finished Gasoline by Gas Chromatography''.
Benzene (alternative test method)	ASTM D6730–01 (Reapproved 2011), entitled, ''Standard Test Method for Determination of Individual Components in Spark Ignition Engine Fuels by 100-Metre Capillary (with Precolumn) High-Resolution Gas Chromatography''.
Oxygenate Content (designated primary test method).	ASTM D5599–00(2010), entitled, ''Standard Test Method for Determination of Oxygenates in Gasoline by Gas Chromatography and Oxygen Selective Flame Ionization Detection''.
Oxygenate Content (alternative test method)	ASTM D4815–15a, entitled, ''Standard Test Method for Determination of MTBE, ETBE, TAME, DIPE, tertiary-Amyl Alcohol and C_1 to C_4 Alcohols in Gasoline by Gas Chromatography''.

TABLE IV.F.2–1—ASTM SAMPLING AND DESIGNATED PRIMARY AND ALTERNATIVE ANALYTICAL TEST METHODS FOR EFF AND NATURAL GASOLINE EFF BLENDSTOCK—Continued

Fuel parameter	ASTM Analytical standard practice or test method
RVP (designated primary test method)	ASTM D5191–13, entitled, ''Standard Test Method for Vapor Pressure of Petroleum Products (Mini Method)''.
RVP (alternative test method)	ASTM D5482–07 (Reapproved 2013), entitled, ''Standard Test Method for Vapor Pressure of Petroleum Products (Mini-Method—Atmospheric)''.
RVP (alternative test method)	ASTM D6378–10, entitled, ''Standard Test Method for Determination of Vapor Pressure (VPx) of Petroleum Products, Hydrocarbons, and Hydrocarbon Oxygenate Mixtures (Triple Expansion Method)''.
Distillation Point (designated primary test method).	ASTM D86–12, entitled, ''Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure''.

The EPA is also taking comment on whether we should establish Performance-Based Analytical Test Method Approach (PBATMA) requirements for the parameters of sulfur, benzene, distillation point, oxygenate content, and RVP in EFF and natural gasoline EFF blendstock. The EPA envisions that sulfur would fall under the absolute fuel parameter category for PBATMA where the precision criteria [157] and accuracy criteria [158] would be the same as for sulfur in gasoline.[159] The EPA envisions the fuel parameters of benzene, T90 distillation point, oxygenate content, and RVP would fall under the method defined fuel parameter category for PBATMA.[160] Under the method defined fuel parameter PBATMA requirements, the EPA envisions that the precision criteria would be the same as for each of these respective fuel parameters in gasoline.[161] The EPA envisions that the accuracy criteria would be addressed by ASTM D6708 assessments to determine the need for a correction equation.[162] The EPA envisions following the same approval process for EFF as for gasoline; that is, voluntary consensus standard body (VCSB) test methods self-qualify to regulatory criteria and non-VCSB test methods submit required information to the EPA for approval.[163] Finally the EPA envisions that the EFF and natural gasoline EFF blendstock statistical quality control (SQC) PBATMA requirements for accuracy and precision would mirror what was finalized for PBAMTA for motor vehicle gasoline and diesel fuel.[164] The EPA is interested in comments on whether the test methods discussed here sufficiently address EFF and natural gasoline EFF blendstock in their precision statement in order to establish PBATMA accuracy and precision criteria as discussed above for the fuel parameters of sulfur, benzene, distillation point, oxygenate content, and RVP.

3. Alternate Provisions for EFF Bulk Blender-Refiners to Demonstrate Compliance With Volatility Standards

As an alternative to per-batch RVP testing, we are proposing that EFF bulk blender-refiners that use natural gasoline to produce EFF could use an RVP tool to demonstrate compliance with the proposed maximum RVP specifications for EFF.[165] Records of the use of such an RVP compliance tool could be used as part of an affirmative defense against potential liability by an EFF bulk blender-refiner in cases where a batch of EFF was later found to exceed the proposed RVP standards. This would parallel how records of an RVP test on such a batch could be used as part of an affirmative defense. We are proposing the use of RVP equations 6, 8, and 11 described in SAE technical paper 2007–01–4006, entitled ''A Model for Estimating Vapor Pressures of Commingled Ethanol Fuels,'' by Sam R. Reddy, which are copied below:

Equation: 6:

$$K_{\text{undenatured ethanol}} = 46.321\ (\text{vol\%}_{\text{undenatured ethanol}})^{-0.8422}$$

[157] The maximum allowable standard deviation computed from the results of a minimum of 20 tests made over 20 days (tests may be arranged into no fewer than five batches of four or fewer tests each, with only one such batch allowed per day over the minimum of 20 days) on samples using good laboratory practices taken from a single homogeneous commercially available gasoline must be less than or equal to 1.5 times the repeatability ''r'' divided by 2.77, where ''r'' equals the ASTM repeatability of ASTM D7039 (Example: A 10 ppm sulfur gasoline sample: Maximum allowable standard deviation of 20 tests≤1.5*(1.73ppm/2.77)=0.94 ppm). The 20 results must be a series of tests with a sequential record of analysis and no omissions.

[158] Two accuracy demonstrations would be completed based on the test method repeatability statements of ASTM D7039. The arithmetic average of a continuous series of at least 10 tests performed using good laboratory practices on a commercially available gravimetric sulfur standard in the range of 1–10 ppm shall not differ from the accepted reference value (ARV) of the standard by more than 0.70 ppm, where the accuracy criteria is 0.75*(1.5*r/2.77), where ''r'' is the repeatability (Example: 0.75*(1.5*1.73ppm/2.77)=0.70 ppm); and The arithmetic average of a continuous series of at least 10 tests performed using good laboratory practices on a commercially available gravimetric sulfur standard in the range of 10–20 ppm shall not differ from the ARV of the standard by more than 1.02 ppm sulfur, where the accuracy criteria is 0.75*(1.5*r/2.77), where ''r'' is the repeatability (Example: 0.75*(1.5*2.52ppm/2.77)=1.02 ppm).

[159] See 40 CFR 80.47(b).

[160] See 40 CFR 80.47.

[161] Proposed method defined precision criteria for EFF and natural gasoline EFF blendstock. A precision demonstration would show through self-qualification for these method defined fuel parameters that the maximum allowable standard deviation computed from the results of a minimum of 20 tests made over 20 days (tests may be arranged into no fewer than five batches of four or fewer tests each, with only one such batch allowed per day over the minimum of 20 days) on samples using good laboratory practices taken from a single homogeneous commercially available gasoline must be less than or equal to 0.3 times the reproducibility ''R'', where ''R'' equals the ASTM reproducibility for benzene see 40 CFR 80.47(i), for T90 Distillation see 40 CFR 80.47(h), for oxygenate content see 40 CFR 80.47(f), and for RVP see 40 CFR 80.47(g).

[162] See 40 CFR 80.47(l).

[163] See 40 CFR 80.47(m).

[164] See 40 CFR 80.47(o), 80.47(p), and 80.47(q).

[165] EFF bulk blender-refiners that use only DFE (or in the case of EFF bulk blender-refiners that are also ethanol producers, potentially undenatured ethanol), and certified gasoline/BOBs that do not take advantage of the 1 psi RVP waiver for E10 could demonstrate compliance simply by maintaining PTDs to demonstrate that only these blendstocks are used.

Equation 8:

$$K_{hydrocarbon} = -7E\text{-}07(vol\%_{undenatured\ ethanol})^3 + 0.0002\ (vol\%_{undenatured\ ethanol})^2 + 0.0024\ (vol\%_{undenatured\ ethanol}) + 1$$

Equation 11:

$$RVP_{EFF\ blend} = K_{hydrocarbon}\ (vol\%_{hydrocarbon} / 100)\ RVP_{hydrocarbon} + K_{undenatured\ ethanol}\ (vol\%_{undenatured\ ethanol} / 100)\ 2.4$$

Equations 8 and 11 were modified from those in the referenced SAE paper by replacing the term ''gasoline'' with ''hydrocarbon'' to reflect that we are proposing that the RVP tool could be used when natural gasoline (and BOBs) are used as EFF blendstocks as well as gasoline. The proposed RVP compliance tool was developed based on data from ethanol blends made with gasoline as the hydrocarbon blend component.

There is some concern regarding the representativeness of the proposed RVP compliance tool when natural gasoline is used as a blendstock because of the low aromatic content of natural gasoline relative to gasoline/BOBs and the effect of aromatic content on the RVP of ethanol blends. However, we believe that the proposed tool would be suitable to cover the use of natural gasoline as an EFF blendstock. Because of the characteristics of natural gasoline, including its typical lower aromatic concentration, we anticipate that the proposed RVP compliance tool would tend to slightly overestimate the actual RVP of blends made using natural gasoline rendering its use somewhat conservative. The EPA is currently conducting work to test the RVP of ethanol blends made with natural gasoline. The results of this study will be used to validate that the proposed RVP compliance tool provides accurate results for blends that contain natural gasoline. If the results of this study indicate that the proposed tool needs to be amended to accurately reflect the RVP blending properties of natural gasoline, the EPA would modify it in a later action.

The RVP of unoxygenated gasoline, BOB, and/or natural gasoline EFF blendstock used to produce the EFF would be volume weighted to arrive at a value for the RVP of the mixture of the hydrocarbon blend components for use in equations 8 and 11. If DFE is used as an EFF blendstock rather that undenatured ethanol, the denaturant would also be included in the volume weighted calculation to arrive at a value for the RVP of the mixture of the hydrocarbon blend components used in equations 8 and 11. We expect that in most cases EFF would be produced at product terminals and that DFE would be used as a blendstock. EFF bulk blender-refiners that are also ethanol producers would have the option to use undenatured ethanol in blending EFF that they manufacture at their production facilities. For the purpose of calculating the inputs for the RVP compliance tool regarding the RVP and volume percent of the hydrocarbons in the EFF blend, it could be assumed that the DFE used as a blendstock contains 3 volume percent denaturant at 15 psi RVP. The volume percent ethanol input to the RVP compliance tool equations would also be assumed to be 97 percent of the volume percent of the DFE used as a blendstock.

We believe that this approach would provide a conservative estimate of the effect of the ethanol denaturant on the volatility of the finished EFF blend. Ethanol denaturant concentration is limited to a maximum of 3.0 volume percent beginning January 1, 2017, pursuant to the requirement of the Tier 3 final rule.[166] Requirements in the RFS program, which specify that only 2 volume percent ethanol may be included for the purposes of compliance, have also prompted ethanol producers to limit denaturant concentration to 2 volume percent (effectively 2.5 volume percent given rounding) to streamline their RFS compliance calculations.[167] Therefore, assuming a 3 volume percent denaturant concentration would be an upper-bound estimate, and the limited information available to the EPA indicates that an RVP of 15 psi would be representative of higher volatility natural gasoline that is used as the predominant ethanol denaturant. We also understand that the volatility of natural gasoline is typically limited to below atmospheric pressure to ease transport and storage logistical issues. Standard atmospheric pressure is 14.7 psi. Therefore 15 psi should represent an upper bound.

We are proposing that EFF bulk blender-refiners would be required to participate in the proposed EFF quality survey. We expect that participation in this survey would provide needed assurance that the RVP compliance tool is being used appropriately, as well as providing needed assurance that other EFF requirements are being satisfied.

We request comment on the above RVP compliance tool, any alternative RVP correlations that might be more accurate, and any data that might be available to enhance its accuracy. We also request comment on whether the proposed RVP blending compliance tool could be extended to cover the use of butane and/or pentane as an EFF blendstock if the use of these blendstocks was allowed.[168]

4. PTD Requirements

The EPA is proposing several changes and additions to the existing PTD requirements to provide the information needed for fuel providers to properly manufacture or blend EFF. The EPA has previously established similar requirements for PTDs for E10 and E15 to help ensure downstream compliance

[166] See 40 CFR 80.1610.

[167] See 40 CFR 80.1401.

[168] As discussed in section IV.C.7.c of this preamble, we are requesting comment on including provisions to allow the use of butane and pentane as EFF blendstocks.

with sulfur, benzene, and RVP requirements. The introduction of EFF into the marketplace makes it important to include additional information on the PTDs that accompany the transfer of EFF and EFF blendstocks.

a. PTD Requirements for EFF Transferred Downstream of an EFF Full-Refinery or Bulk Blender-Refinery

Under the current regulations, the transferor of gasoline-ethanol blends with ethanol content above 15 percent is required to provide to the transferee information on ethanol concentration of the blend by the following statement: ''EXX—Contains no more than XX% ethanol.'' [169] The purpose of the statement was to ensure proper labeling of gasoline-ethanol blends above E15 and to prevent any downstream parties from commingling fuels that could result in RVP exceedances or other violations. As we are proposing EFF regulations that encompass EFF from E16 to E83, we are proposing to replace ''EXX'' with ''Ethanol Flex Fuel.''

b. PTD Requirements for EFF

We are proposing to add new PTD requirement for transfers of EFF. The general requirements would be similar to that of gasoline, where any person that transfers EFF would be required to provide PTD information including the name and address of the transferor and transferee, the volume of EFF being transferred, the location of EFF at the time of transfer, the date of transfer, and the approximate ethanol concentration as discussed above. The transferor would also be required to provide a statement on the PTD that indicates its suitability or lack thereof for use as a blendstock to manufacture EFF in a blender pump. As discussed earlier, there are a number of paths to manufacture EFF and the challenges in demonstrating compliance with the RVP standard are greatest for blender pumps, given the non-linear RVP blending characteristics of potential blendstocks. To resolve this concern, we are proposing to list the blendstocks that can be used in blender pumps to make EFF and to require a statement on the PTD that states whether the blendstock is suitable for use in a blender pump and meets the RVP requirements.

Under the proposed rule, blender pumps can manufacture EFF by blending no more than two blend components: A high ethanol content blend component and a high hydrocarbon content blend component. The components will primarily vary based on two factors: Whether the blendstock is being used in a CG or RFG area and whether it is between June 1 and September 15.[170] For instance, a blender pump that is located in an RFG area cannot use a hydrocarbon blendstock composed of conventional gasoline to manufacture EFF. The blender pump also cannot blend a hydrocarbon blendstock that is not compliant with RVP requirements from June 1 through September 15 with other blendstocks to manufacture EFF. In accordance with this approach, we are proposing that a statement be written on the PTD that indicates the suitability of the EFF for use at a blender pump.

c. PTD Requirements for Certified Natural Gasoline EFF Blendstock

We are proposing to add a new PTD requirement for the transfer of certified natural gasoline EFF blendstock. The PTD would require general information such as the name and address of the transferor and transferee, volume of the blendstock being transferred, location of the blendstock at the time of the transfer, and the date of the transfer. We are also proposing to require reporting the RVP on the PTD to facilitate downstream blending by alleviating the need for additional downstream testing and to minimize any improper commingling. The natural gasoline EFF blendstock refiner or importer may choose to either conduct per-batch sampling to determine the RVP or use a default RVP value of 15 psi.

We are also proposing to require a statement on the PTD prohibiting the use of natural gasoline EFF blendstock as a blendstock at blender pumps and its sale as conventional blendstock for oxygenate blending (CBOB) or reformulated blendstock for oxygenated blending (RBOB). Natural gasoline is known to be the higher temperature boiling components of natural gas liquids that is sometimes used as a denaturant for ethanol. It is also utilized in producing EFF since it is conveniently stored at the plant for its denaturant use and is considerably less expensive than CBOB and RBOB. Yet natural gasoline is known to have a higher RVP than CBOB or RBOB, so its use may hinder downstream RVP compliance. As explained above, EFF blender pump-refiners are similar to full-refiners in that they have the ability to manufacture EFF, but do not have the same quality assurance requirements. Accordingly, we are proposing that the natural gasoline EFF blendstock be prohibited from use as a blendstock at blender pumps. Furthermore, we are proposing to require a statement to distinguish natural gasoline EFF blendstock from other blendstocks (such as CBOB or RBOB) to prevent any confusion for downstream parties. We are proposing to require a statement that it cannot be used as CBOB or RBOB or blended into CBOB, RBOB, or gasoline without meeting all requirements applicable to refiners. This statement would minimize any confusion for downstream parties and help ensure that certified natural gasoline EFF blendstock is not used as a gasoline blendstock.

5. Attest Engagements, Affirmative Defenses, Violations, and Penalties

We are proposing attest engagement requirements for EFF full-refiners and importers, EFF bulk blender-refiners, and certified natural gasoline EFF blendstock refiners and importers using the procedures used in other EPA fuels programs for attest engagements. We believe that attest engagements are particularly important for EFF bulk blender-refiners. Having an independent auditor review blending records to ensure that EFF made by bulk blender-refiners meet applicable EFF requirements would help ensure compliance, given the reduced sampling, testing, and reporting requirements. Attest engagements would also help ensure applicable EFF requirements are met, similar to how attest engagements help assure compliance for fuel manufacturers in other EPA fuels programs.

We are also proposing affirmative defense requirements for parties that manufacture, distribute, and sell EFF. These provisions would allow parties that manufacture, distribute, or sell EFF to help establish affirmative defenses against potential violations of the proposed EFF requirements if all applicable conditions are met. These proposed potential affirmative defenses are analogous to those provided to other parties in other EPA fuels programs.

The violation and penalty provisions applicable to this proposed EFF program would be very similar to the provisions currently in effect in other fuels programs. We are proposing that EFF and natural gasoline EFF blendstock downstream violations follow the same presumptive liability approach used in other fuel programs. We request comment on the need for additional attest engagement, violation, penalty, or any other compliance and enforcement related provisions to the proposed EFF and natural gasoline EFF blendstock requirements.

[169] See 40 CFR 80.1503(b)(1)(vi)(E).

[170] It is important to note that EFF may also be subject to different RVP standards based on being in an RVP controlled area within an RFG or CG area.

6. Compliance Dates

Based on our experience with our past fuel standards, we are proposing a sequence of start dates for compliance depending on the point in the fuel production and distribution system. We are proposing that the proposed requirements for EFF would apply to EFF full-refiners and bulk blender-refiners beginning January 1, 2018. EFF full-refiners and EFF bulk blender-refiners would be required to submit their registration applications to the EPA by November 1, 2017, or 2 months prior to producing EFF. To allow sufficient time for certified natural gasoline EFF blendstock to be made available to EFF full-refiners and bulk blender-refiners, we are proposing that the requirements for certified natural gasoline EFF blendstock would apply beginning December 1, 2017. Producers of certified natural gasoline EFF blendstock would be required to submit their registration applications to the EPA by October 1, 2017, or 2 months prior to producing certified natural gasoline EFF blendstock.

We are proposing that the proposed requirements for EFF would apply at retail and WPC facilities beginning February 1, 2018. We are proposing that the provisions for E15 blender pump retail and WPC facilities would likewise be effective beginning February 1, 2018. This would provide one month between the date when upstream producers of EFF are required to comply and the date for retail and WPC compliance to allow time for EFF retail tank turnover. This time for retail/WPC tank turnover would be needed for blender pumps that produce E10/E15 as well as those that produce E16–50 using EFF as a parent blend. We anticipate that retailers and WPC facilities would draw down their storage tank volumes and manage deliveries to facilitate compliance on February 1, 2018. We request comment on whether these proposed compliance dates would provide sufficient time for the various parties in the EFF production and distribution system to prepare for compliance.

We are planning on allowing at least 4 months after the publication of the final rule that results from this action before the EFF requirements and gasoline blender pump provisions would apply at retail and WPC facilities. If publication of the final rule is delayed, we would adjust the compliance dates for the various parties in the EFF production and distribution system discussed above to maintain a similar sequenced compliance schedule.

Under the volatility control provisions for conventional gasoline, retail outlets and WPC facilities are required to comply with gasoline RVP requirements from June 1 through September 15 of each year.[171] Upstream parties are required to comply from May 1 through September 15 of each year to facilitate retail and WPC compliance. Operators of retail and WPC facilities manage the timing of their gasoline deliveries so that storage tank volume is drawn down prior to the first delivery of RVP controlled gasoline in the spring of each year. These practices ensure retail and WPC level compliance by the June 1 compliance date.

The same seasonal environmental concerns exist regarding the control of evaporative emissions for FFVs as exist for gasoline vehicles. Therefore, we are proposing that EFF retail and WPC facilities would be required to comply with the proposed RVP standards for EFF from June 1 through September 15 each year in parallel with the requirements for gasoline. We are also proposing that all facilities upstream of retail and WPC facilities would be required to comply with the proposed RVP requirements for EFF from May 1 through September 15 each year in parallel with the gasoline RVP requirements. We believe that this compliance schedule should provide sufficient time for EFF retail and WPC tank turnover provided that EFF retailers and WPC carefully manage their tank volume and delivery schedules. However, we are requesting comment on whether an earlier compliance date would be appropriate for parties upstream of retail and WPC facilities given the historically longer turnover time for EFF retail tanks.

The proposed compliance dates discussed above are summarized below in the Table IV.F.6–1.

TABLE IV.F.6–1—PROPOSED EFF COMPLIANCE DATES

	Certified natural gasoline EFF blendstock producers	EFF full-refiners and EFF bulk blender-refiners	EFF retail and WPC facilities
EPA Registration	10/1/2017 or 2 months prior to production.	11/1/2017 or 2 months prior to production.	Not applicable.
Sulfur, Benzene, and CHONS Requirements.	12/1/2017	1/1/2018	2/1/2018.
Seasonal RVP Requirements	Not applicable. Year-round RVP cap beginning 12/1/2017.	5/1 through 9/15 of each year beginning 5/1/2018*.	6/1 through 9/15 of each year beginning 6/1/2018.

*These seasonal RVP compliance dates apply to all parties in the EFF production and distribution system (including terminals) except retail and WPC facilities.

**The provisions for E10/E15 blender pump-refiners would be effective 2/1/2018.

7. Renewable Volume Obligation

CAA section 211(o)(2)(A)(i) requires that the EPA establish a regulatory program to ensure that transportation fuel contain specified volumes of renewable fuel. In the regulatory program enacted as part of the RFS2 final rule,[172] we specified that obligated party RVOs would be based on their production and import of gasoline and diesel fuel, since other forms of transportation fuel (*e.g.,* natural gas, propane, and electricity) were used in much smaller quantities than gasoline and diesel, and their use as transportation fuel would be difficult to distinguish at the production level from their use for other purposes.[173] However, we also reserved expansion of the RVOs to other forms of transportation fuel for future inclusion if warranted. As a result, the RVOs applicable to refiners and importers are currently based only on the non-renewable volumes of the gasoline and diesel that they produce or import for use in the U.S.

At the time of the RFS2 final rule, E51–83 was not included with gasoline and diesel as a fuel that incurs an RVO, despite the fact that it can be used as a transportation fuel and it has some non-renewable content. Gasoline is the only non-renewable material that currently can be used to make E51–83 EFF while ensuring that it meets the gasoline sub-

[171] See 40 CFR 80.27.

[172] See 75 FR 14670 (March 26, 2010).

[173] See 75 FR 14721 (March 26, 2010).

sim requirement. Since all gasoline incurs an RVO, therefore, the non-renewable fraction of E51–83 incurs an RVO under our current RFS regulations. Since E16–50 blends are being made at blender pumps using gasoline and E85, the non-renewable fraction of E16–50 blends also incurs an RVO under our current regulations. Moreover, since E16–50 blends are also treated as gasoline under our current regulations, we saw no need in the RFS2 final rule to add the non-renewable portion of E16–83 blends to the list of fuels that incur an RVO under the RFS program.

In the years since 2010, there has been increasing interest in the use of natural gasoline as an E51–83 blendstock. Since E16–50 blends are produced at blender pumps using E51–83 as one of the parent blends, such natural gasoline would also be a component of E16–50 blends. As stated before, gasoline is the only non-renewable material that currently can be used to make E51–83 EFF, and natural gasoline, which is typically extracted from the condensates produced from natural gas wells, is not considered to be gasoline under our current regulations. This proposal contains provisions to allow the use of natural gasoline as an EFF blendstock.

Since under our current regulations natural gasoline is not considered to be finished or unfinished gasoline that will eventually be used in the transportation sector, it does not currently incur an RVO under the RFS program. However, by replacing the finished and unfinished gasolines that had formerly been used to produce E16–83 with natural gasoline, it is appropriate to consider whether the RFS regulations should be modified to add natural gasoline used to produce E16–83 to the list of fuels that incur an RVO. This proposal also contains provisions to regulate all E16–83 blends as EFF rather than to continue to treat E16–50 blends as gasoline, thereby providing additional impetus to the consideration of whether natural gasoline used in EFF blends should be added to the list of fuels that incur an RVO.

Under the RFS regulations, the party that first produces or imports a transportation fuel is generally the party that incurs the RVO for the non-renewable portion of that transportation fuel. If EPA were to require all natural gasoline used to make EFF to incur an RVO, there would be a different point of obligation for certified versus uncertified natural gasoline used as an EFF blendstock. For certified natural gasoline EFF blendstocks, the party incurring the RVO would be the producers or importers, consistent with producers and importers of all gasoline and diesel. For uncertified natural gasoline EFF blendstock, however, the party incurring the RVO would be the party that blends DFE with the uncertified natural gasoline EFF blendstock to produce EFF, since the natural gasoline would not have been designated or treated as an EFF blendstock upstream at the point of production or importation. EFF is generally produced by blenders and ethanol producers that would typically not produce any other fuels that would incur an RVO. Thus, the imposition of an RVO on the producer of EFF would make certain parties responsible for satisfying an RVO that have not had such obligations to date. The EFF producer would need to quantify and track volumes of natural gasoline separately from gasoline and BOBs used to produce EFF. The EFF producer would also be required to acquire and retire an appropriate number of RINs to meet their obligation under the RFS program. There would be both practical and economic impacts on EFF producers that might discourage its expansion in the marketplace.

While in general we continue to believe that all non-renewable transportation fuel should incur an RVO, we also believe that expanding opportunities for the use of EFF is an important goal of the RFS program. Since imposing an RVO on EFF producers that use natural gasoline could potentially conflict with that goal, it may not be appropriate to do so at this time. Moreover, the volume of EFF is currently significantly smaller than the volume of other non-renewable transportation fuels, and is expected to remain so for some time. Based on these considerations, we are not proposing that natural gasoline used to make EFF would incur an RVO, but are instead proposing to defer the imposition of an RVO on parties making EFF with natural gasoline until such time as EFF produced using natural gasoline becomes a more substantial fraction of the transportation fuel pool. We seek comment on this issue and the option to defer the RVO obligation for this fuel.

8. Other Compliance Issues

a. Pump Labeling

During the Tier 3 public comment period, we received comments requesting that the EPA adopt labeling provisions for EFF fuels to help prevent the misfueling of EFF into gasoline-powered conventional vehicles.[174] The EPA also sought comment on this issue in the E15 misfueling mitigation rulemaking.[175] As was described in the E15 misfueling mitigation rulemaking, the EPA chose not to require labels for EFF at that time because the FTC was planning to require labels that were consistent in size, shape, and content with the EPA's E15 label.[176] We also noted that two separate labeling requirements for EFF by the FTC and the EPA would potentially be confusing and counterproductive to the mitigation of misfueling.

Since the publication of the E15 misfueling mitigation rulemaking and the end of the Tier 3 public comment period, the FTC has finalized labeling requirements for EFF.[177] We believe the FTC EFF labeling requirements are consistent in size, shape, and content with our E15 label and will help mitigate the misfueling of gasoline-fueled vehicles, engines, and equipment with EFF. Therefore, to avoid confusion we are not proposing to require additional EFF labeling requirements at this time.

b. E15 Misfueling Mitigation Harmonization

While this proposal focuses on establishing requirements for EFF quality, minor modifications to the E15 misfueling mitigation requirements at 40 CFR part 80, subpart N, are needed to accommodate the proposed EFF requirements. We are not reopening any other portions of subpart N, and are therefore not seeking comments on aspects of subpart N other than those described in this proposal.

We are proposing a restructuring of 40 CFR part 80, subpart N, to incorporate the proposed EFF requirements. In general, the E15 misfueling mitigation requirements are unchanged; however, some slight modifications to the E15 misfueling mitigation requirements would be necessary to incorporate EFF requirements. For example, we are proposing to change the PTD requirements for E15 misfueling mitigation in 40 CFR 80.1563 to be consistent with PTD requirements for the Tier 3 gasoline sulfur program and incorporate new language to help EFF blender pump-refiners comply with applicable EFF requirements. Additionally, consistent with PTD requirements in other EPA fuels programs, we are proposing to allow parties to submit alternative EFF PTD language for EPA approval, including E15 misfueling mitigation PTD requirements. This would allow all affected parties an opportunity to use

[174] See Docket Item No. EPA–HQ–OAR–2011–0135–5212.

[175] See 75 FR 68044 (November 4, 2010).

[176] See 76 FR 44406 (July25, 2011).

[177] See 79 FR 18850 (April 4, 2014).

more concise PTD language, with EPA approval, to help address the manifold complex situations that may occur in the fuel distribution system while meeting the intent of the EPA's PTD requirements.

We are also proposing to add a definition for flexible-fuel engines and language that exempts flexible-fuel nonroad engines from the prohibition on the use of gasoline-ethanol blended fuels containing more than 10 volume percent ethanol since these engines have been certified on the use of EFF similar to FFVs. Although we have pointed out that the current regulatory requirements allow flexible-fuel engines to use EFF,[178] we are proposing to remove any ambiguity from the regulations to better accommodate appropriate EFF use at retail stations.

9. EFF Quality Survey Program

The EPA has a successful history of allowing regulated parties to participate in survey programs managed by an independent survey association as a way to decrease compliance costs for both regulated parties and the EPA. We recognize that many, if not all, EFF bulk blender-refiners and blender pump-refiners would have difficulty complying with the EFF full-refiner requirements, including sampling and testing, compliance reporting, recordkeeping requirements, and attest engagements. As a result, we have developed compliance systems for EFF bulk blender-refiners and blender pump-refiners that rely primarily on monitoring records as discussed above. Such systems, however, are subject to fraud and abuse without some means to verify their authenticity. As a result, we need some means of doing so for EFF. Based on past experience with our other fuel programs, we believe the least costly and most effective way of doing so is through in-use fuel quality surveys. As such, we believe that allowing EFF bulk blender-refiners and blender pump-refiners to verify compliance with the proposed EFF requirements through participation in a survey program and the use of appropriate blendstocks and parent fuels is appropriate. EFF bulk blender-refiners and blender pump-refiners would comply with the applicable EFF standards through the use of appropriate parent fuels and blendstocks and by contracting an independent survey association to conduct a survey of EFF manufactured through blender pumps and blended in bulk at terminals or at an ethanol production facility. The scope of the EFF blender pump survey program and specific design requirements for the survey program are discussed below.

a. Scope of the EFF Quality Survey Program

The survey would be limited to collecting and analyzing samples of EFF for ethanol content, sulfur content, benzene content, and RVP (from June 1 to September 15) at EFF and blender pump retail stations. The proposed EFF requirements would impose a 10 ppm annual average sulfur standard, 95 ppm per-gallon sulfur cap, and 0.62 volume percent annual average benzene standard on all EFF. In lieu of requiring the sampling and testing of each batch to ensure compliance with the sulfur and benzene standards, the EPA is proposing to allow EFF bulk blender-refiners and blender pump-refiners the flexibility to comply with these standards by contracting with an independent survey association to randomly sample and test the EFF they manufacture. The EPA believes that most terminals, ethanol production facilities, and retail stations that make EFF would prefer to contract an independent survey association to conduct such a survey since it would be significantly cheaper than sampling and testing each batch of fuel for sulfur and benzene content.

As discussed earlier, determining the RVP resulting from commingling gasoline, ethanol, and natural gasoline is complicated for parties that are simply creating small batches of EFF.[179] This situation is even more complex at blender pumps where many different gasolines could be commingled through the dispenser and in the underground storage tanks, with many different EFF in varying proportions. Although we are proposing to control the RVP for EFF manufactured through a blender pump by regulation of the parent fuels, the EPA believes that RVP information from the samples would help ensure that EFF dispensed through blender pumps does not result in summertime fuels greater than 10 psi that would impose problems for FFV evaporative emissions controls. The EPA would monitor the information from the EFF survey to inform whether an EFF blender pump-refiner RVP requirement would be necessary.

The benzene and sulfur test results from these fuels would help ensure that EFF manufactured by an EFF bulk blender-refiner and the parent blends at an EFF blender pump-refinery (*i.e.,* the gasoline and EFF used to make gasoline-ethanol blended fuels at blender pumps) are meeting applicable benzene and sulfur standards at a regional and national level. This information would be useful to identify if further requirements to control sulfur and benzene levels in EFF are needed. Additional parties (*e.g.,* EFF full-refiners and natural gasoline EFF blendstock refiners) could participate in the survey to help establish affirmative defenses similar to what we are proposing for RVP, in-use sulfur, and benzene content. We also seek comment on whether there are any other fuel parameters that should be measured as part of the proposed EFF survey program to help ensure EFF compliance with proposed requirements.

The EPA is also proposing to require that EFF bulk blender-refiners participate in the survey as part of satisfying the alternative compliance provisions as EFF bulk blender-refiners. In order to ensure that the EFF produced by an EFF bulk blender-refiner met applicable EFF standards, all EFF retail outlets would need to be surveyed. Testing these fuels for regulated parameters would help ensure that EFF produced by bulk blender-refiners met standards.

We are not proposing to require that EFF full-refiners participate in the EFF survey program in addition to the other proposed requirements for EFF full-refiners. We believe that EFF full-refiners can demonstrate that their fuels would meet applicable EFF fuel quality standards through the sampling and testing of each batch of EFF at the point of production consistent with how gasoline refiners have done so in other EPA fuels programs. Historically, the EPA has never required that parties contract with an independent surveyor as the only means of demonstrating requirements. Compliance surveys have always been a compliance option for parties in lieu of conducting their own compliance assurance programs. Requiring all EFF refiners to participate in the survey would also blur the lines between the compliance options of being an EFF full-refiner or an EFF bulk blender-refiner and make the full-refiner option less attractive to parties that manufacture EFF. However, requiring EFF full-refiners to participate in the survey program would help spread out the compliance costs across all parties that manufacture EFF since the EFF survey would sample and test EFF from retail stations regardless of which party produced it. Therefore, although we are not proposing to require EFF full-refiners to participate in the EFF survey program, we seek comment on whether EFF full-refiners should be required to participate in the EFF survey program.

[178] Letter to Bob Greco, American Petroleum Institute, from Adam Kushner, U.S. EPA, July 31, 2008.

[179] See section IV.D.3.b of this preamble.

We recognize that the proposed EFF survey program overlaps significantly with the E15 survey program. The E15 survey program already regularly samples blender pump stations for the ethanol content of gasoline samples, with a focus on E15. Currently, most blender pump stations are selected for sampling and testing since these stations make up a bulk of the stations already offering E15 and are the most likely to offer E15 without satisfying E15 misfueling mitigation requirements. Additionally, some retail stations that market E85, but do not have blender pumps, are randomly selected as part of the E15 survey program. Since these stations are already being surveyed as part of the E15 survey program, we believe that responsible parties could integrate the proposed EFF survey program with the E15 survey to reduce the cost to industry. However, the proposed EFF survey program requirements are separate from the E15 survey requirements in the regulations and EFF bulk blender-refiners and blender pump-refiners may choose to have two different independent survey associations to conduct the E15 and EFF surveys.

b. Specific EFF Quality Survey Design Requirements

We are proposing similar survey design elements for the EFF survey program as those used in other EPA fuels survey programs. The survey would be conducted by an independent survey association with the same independence requirements used in other fuels survey programs. The independent survey association would submit an annual plan to the EPA for approval that outlines how the EFF blender pump survey requirements would be met. These requirements would include how blender pump and EFF stations would be selected for sampling and testing, how samples would be procured, how samples would be tested for sulfur, benzene, RVP, and ethanol content, and how potential issues would be reported to the EPA. The survey association would have to also submit periodic and annual reports on aggregate survey results to the EPA. The survey association would be responsible for identifying blender pump and EFF station locations and providing those locations to the EPA on a regular basis. The survey association would also let the EPA know if any EFF bulk blender-refiner or blender pump-refiner fails to participate in the EFF survey consortium. Similar to other survey programs, the survey association would also have to provide proof of monies for the approved survey plan prior to the implementation of the annual EFF survey plan. Consistent with other EPA fuels survey programs, the EFF survey program would require four quarterly surveys.

We also are proposing a slightly different sample size determination methodology from those used in other EPA fuels survey programs for the EFF survey program. Since the EFF survey program needs to sample EFF produced by a bulk blender-refiner and distributed to all EFF stations (*i.e.,* stations offering only ''E85'' and stations that operate blender pumps), the EFF survey would need to take samples from a subset of all stations that offer EFF. However, EFF produced at a blender pump and EFF produced at a terminal or ethanol production facility necessitates different sampling and sample size methodologies to ensure that the EFF sampled and tested is representative of the fuels produced by EFF bulk blender-refiners and blender pump-refiners, respectively. Therefore, we are proposing to have separate sample size determinations for all EFF stations and for the subset of stations with EFF that make EFF through a blender pump.

For all EFF stations, the sample size determination methodology would be similar to those already required in other EPA fuels survey programs with one difference. Since the number of total EFF stations is still relatively small (around 3,000 stations), a finite population correction would be needed to account for the small population of EFF retail stations. Additionally, we are proposing a minimum number of samples for the survey of all EFF retail stations of 500 stations to account for the relatively low population of EFF retail stations. The EPA would reconsider the minimum sample size if the number of EFF retail stations increases substantially relative to the total number of fuel retail stations nationwide.

For the subset of EFF stations that make EFF via a blender pump, we believe a different sample size determination methodology is necessary due to the even smaller relative size of the population of blender pump stations. To date there have been a limited number of retail stations that own or operate blender pumps (we estimate 400 to 500), spread out over many states but focused primarily in the Midwest. Given the limited number of retail stations that currently own or operate blender pumps, we propose that the survey would be conducted at all blender pump stations each year until the number of retail stations with blender pumps exceeds 500 stations. This would mean that each retail station with a blender pump could expect to be sampled at least once per year. Once the number of stations with a blender pump exceeds 500 stations, the survey association would determine the number of retail stations to be sampled in accordance with appropriate sample size determination methodology.[180] For these sample size determinations, we are proposing similar sample size determination methodology as those used in other EPA fuels survey programs.[181] However, under no circumstances would the minimum number of retail stations selected to be sampled be less than 500.

Although we are not proposing a maximum number of samples, a maximum sample size could be used to limit the cost of the survey program since the number of retail stations that are needed to be sampled would depend on compliance rates determined by the previous survey period and the number of total retail stations with blender pumps. For example, in the ULSD Survey Program, we established a maximum number of samples at 9,600 to limit industry's potential cost.[182] We seek comment on these proposed sample size requirements.

We are proposing that the survey association use a method for collecting samples of EFF produced through a blender pump consistent with those specified in NIST Handbook 158. Since most E15 is currently produced by blending E10 with EFF via a blender pump, the EPA has encountered some challenges with collecting a valid sample due to the unique way that blended fuels are produced at blender pumps. The issue was that inconsistent ethanol content results occurred due to variation between the independent survey association and states' weights and measure offices. In order to address this issue, the EPA has worked with industry, the RFG Survey Association, and other affected stakeholders to

[180] It should be noted that this 500 station minimum is in addition to the 500 station minimum for the entire EFF station population. This means that the EFF survey program would have a minimum number of 1,000 stations that are sampled in a given year. These 500 stations cannot be double-counted within the EFF program; however, stations selected for the E15 program could be counted for the EFF survey program minimum number.

[181] For the first year of the survey to determine the number of retail stations for the survey, the estimated non-compliance rate would be 2.3 percent. This number is based on historical compliance rates from other fuel programs. Since it is most likely that the first several years of the survey would be a virtual census of blender pumps, actual compliance rates from these years would substitute the historical figure of 2.3 percent.

[182] See 40 CFR 80.6113(e)(4)(v).

develop an agreed upon sampling protocol to ensure that representative samples are collected from blender pumps. This agreed-upon method was included in NIST Handbook 158, and we believe that the methods specified there for collecting blended fuels produced through a blender pump yield representative samples. Therefore, we are proposing that the survey association use one of those methods, incorporated by reference, for both the E15 and EFF survey programs. We seek comment on whether this is appropriate.

Unlike in our other fuel survey programs, we are proposing not to require that the samples at retail stations be stratified. The practical implication of not stratifying the sample is that the annual sample size of retail stations surveyed would be decreased.[183] This is related to the small number of retail stations with blender pumps and the fact that many of these stations are located in rural areas. Historically, the EPA has stratified the national retail station pool to ensure that fuels from major metropolitan areas, transportation corridors (*i.e.,* the areas around interstates and major highways), and rural areas were appropriately represented in the survey sample. This helped give the EPA a sense of compliance rates in each stratum to help target future compliance and enforcement efforts. Since blender pumps are not concentrated in major metropolitan areas or along transportation corridors, it does not make sense to have a survey that stratifies a sample like other national fuels survey programs. Additionally, at least for the first few years of the program, the EFF quality survey program would take samples from all retail stations with blender pumps, making stratification unnecessary. However, if EFF stations become more prevalent nationwide, stratification of the national EFF station pool could be incorporated into the annual EFF survey plan in the future.

We are proposing that the independent surveyor submit the survey plans to the EPA for approval no later than November 15 of the preceding year and that proof of monies be submitted to the EPA no later than December 15 of the preceding year. These dates are consistent with other EPA fuels survey programs and should provide enough time for an independent surveyor to submit plans and begin conducting the survey. It should be noted that responsible parties may only take advantage of the alternative compliance provisions for EFF bulk blender-refiners and blender pump-refiners if they participate in a survey program with an EPA-approved survey plan.

Although the EFF quality survey program would be required for EFF bulk blender-refiners and blender pump-refiners, we are proposing that other parties (*e.g.,* EFF full-refiners) could participate in the EFF quality survey consortium to help establish an affirmative defense for potential EFF violations. The EPA has provided this affirmative defense opportunity to parties in other fuels programs (*e.g.,* the E15 survey program).

Even though the EFF quality survey program is similar to other EPA fuels program surveys, we are proposing some significant changes to the survey design to accommodate blender pumps and EFF stations. We believe that the proposed survey design can effectively help assure compliance without imposing unnecessary burden on responsible parties. However, we are interested if there are changes to the proposed EFF survey program that could improve its effectiveness in assuring compliance or further reduce costs for responsible parties. One option to reduce costs would be to find alternatives to ensuring compliance at the retail level without sampling and testing. For example, the independent surveyor could review the PTDs of parent fuels to ensure that EFF blender pump-refiners only received certified gasoline and EFF for EFF production through a blender pump. This PTD review could be less expensive than the sampling and testing of EFF and could replace some of the sampling that needs to occur under the proposed EFF survey program. The EPA is not proposing this option over concerns that retail stations may not wish to allow an independent surveyor to review their PTDs and thus diminish response rates in the proposed survey program. We seek comment on allowing independent surveyors to review PTDs in lieu of taking an EFF sample and testing it for compliance and whether there are any additional survey design changes that should be incorporated in the proposed EFF survey program.

G. Simplified EFF Alternatives

The proposed provisions to allow the use of natural gasoline as a blendstock to produce EFF could reduce the cost of EFF and result in the increased use of ethanol to help meet the RFS mandates. However, the use of natural gasoline would also introduce complications, necessitate the substantial new provisions discussed in this proposal, and increase the EPA's burden to ensure that EFF meets environmentally protective standards. Accordingly, we are also seeking comment on implementing two alternative simpler programs to regulate EFF.

The first alternative would only allow the use of EPA-compliant gasoline, BOBs, and DFE as EFF blendstocks. This would parallel the current requirements in California while still expanding the allowable range of ethanol blends.

A number of the provisions in this proposal would remain unchanged under this simpler approach. For example, we would still propose to treat E16–50 in a similar way to other EFF blends that may only be used in FFVs (E51–83), and would defer consideration of requiring compliance with the F&FA program requirements for all EFF to a future action. The proposed EFF blender pump-refiner provisions would also remain the same.

Since parties that produce EFF would only be using DFE and EPA-compliant gasoline or BOBs, they would not have to conduct any sampling or testing to demonstrate compliance with any of the proposed requirements for EFF, including the RVP requirements. The only programmatic requirements for EFF bulk blender-refiners would be to register with the EPA, keep PTDs and other records regarding their blending activities, and submit simple annual reports with information regarding the EFF batches they produced during the year.

The second alternative would allow EFF producers to use certified natural gasoline EFF blendstocks in addition to certified gasoline and BOBs, but would not allow the use of uncertified natural gasoline EFF blendstocks. Thus, the EFF full-refiner certification option would no longer be included. There are several benefits of this proposed approach, as it would allow the increased use of natural gasoline to produce EFF, thereby reducing the costs, and would also assure that the overall emissions from EFF are no greater than emissions from the production of EFF with certified gasoline without the complications necessitated by the use of uncertified natural gasoline. The EFF full-refiner option would allow natural gasoline with higher benzene and sulfur levels to be used to produce EFF, provided that tests on the finished EFF demonstrated the same level of control as provided for gasoline under the current regulations. The added complexity under the EFF full-refiner option, which is needed to

[183] On the other hand, by not stratifying the sample, this ensures the probability of an individual station being randomly selected for sampling is relatively the same. This could help reduce concerns associated with selection bias in the survey program.

ensure that the use of higher sulfur and benzene natural gasoline does not result in increased emissions, may create confusion among regulated parties and increase the likelihood of violations for downstream parties.

We request comment on whether the increased flexibility of allowing the use of either certified or uncertified natural gasoline as an EFF blendstock justifies the EPA promulgating the previously discussed comprehensive compliance provisions and the increased burden of governmental oversight, or whether it would be more appropriate to implement one of the simpler programs described above.

H. Statutory Authority for Proposed EFF Requirements

FFVs have been manufactured and introduced into commerce for more than two decades and are typically designed to operate on gasoline and any gasoline-ethanol mixture of up to 83 percent ethanol. These fuels contribute to emissions of VOC and NO_X that result in the formation of both ozone and fine particulate matter ($PM_{2.5}$). These pollutants present a significant risk of harm to public health and welfare. Given the environmental and health effects of evaporative emissions from fuels, the EPA has responded by consistently setting requirements to address such emissions. For example, beginning in 1971, the EPA established a series of evaporative control requirements for vehicles and engines, under CAA section 202(b). Similarly, beginning in 1989, the EPA set volatility requirements for gasoline under CAA section 211(c) by requiring that gasoline meet a maximum RVP of 9.0 psi during the ozone high season. In 1990, Congress ratified these regulations by promulgating CAA section 211(h). The EPA has also limited sulfur in gasoline in its Tier 3 rule under CAA section 211(c),[184] and has limited levels of benzene under the Mobile Source Air Toxics (MSAT) rule.[185]

When operating on gasoline, FFV emissions are minimized due to the existing gasoline content requirements (*i.e.,* sulfur, benzene, CHONS, and RVP). Currently, the only fuel requirement for higher ethanol blends used in FFVs is that it has to be either substantially similar to certification fuel or have a waiver under CAA section 211(f). FFVs are also equipped with the same type of emission control systems as conventional gasoline vehicles and are generally subject to the same emissions standards. Therefore, we believe that in order to maintain emissions control performance, FFVs need EFF that meet quality specifications similar to those for gasoline, such as the 10 ppm annual average sulfur standard in the Tier 3 gasoline sulfur program,[186] and the 0.62 volume percent annual average benzene standard in the gasoline benzene program.[187]

The EPA is proposing to regulate EFF content pursuant to our authority under CAA section 211(c). We are proposing sulfur, benzene, and RVP controls for EFF based on both of the criteria in section 211(c). This section allows the EPA to establish a fuel control if at least one of the following two criteria is met: (1) The emission products of the fuel cause or contribute to air pollution that may reasonably be anticipated to endanger the public health and welfare; [188] or (2) The emissions products of the fuel will impair to a significant degree the performance of any emissions control device or system which is either in general use or which the Administrator finds has been developed to a point where in a reasonable time it will be in general use or which the administrator finds has been developed to a point where in a reasonable time it will be in general use were the fuel control to be adopted.[189] We are also proposing to limit EFF to CHONS using our authority under CAA section 211(f).

1. Section 211(c)(1)(A)

Under the first criterion of CAA section 211(c)(1), we believe that EFF with current levels of sulfur, benzene, and RVP causes or contributes to ambient levels of ozone, PM and air toxics that endanger the public health and welfare. EFF containing sulfur at the current levels increases emissions of NO_X and PM from FFVs and as such contributes to the formation of ozone and PM in the atmosphere. EFF with current RVP levels is a source of VOC emissions and as such contributes to the formation of ozone in the atmosphere. In addition, EFF is also a source of MSATs. MSATs are present in gasoline and gasoline-ethanol blends or their additives and are emitted to the air when EFF evaporates or passes through FFV engines.

The EPA has set National Ambient Air Quality Standards (NAAQS) for ambient concentrations of PM and ozone.[190] PM is a highly complex mixture of substances that exist as discrete particles. Particles span many sizes and shapes and may consist of hundreds of different chemicals. PM is linked to a broad range of health effects.[191] There are well documented studies on the health effects associated with both short-term and long-term PM exposure. Short-term $PM_{2.5}$ exposure has been associated with increased cardiovascular and respiratory effects and mortality.[192] With regard to long-term exposure, there are also studies that demonstrate a link between long-term exposure to $PM_{2.5}$ with an array of cardiovascular effects such as heart attacks, congestive heart failure, stroke, and mortality.[193] Specific groups within the general population are at increased risk for experiencing adverse health effects related to PM exposures, including children, older adults, and individuals with pre-existing heart and lung disease. Further, environmental and welfare effects of $PM_{2.5}$ include reduced visibility in certain parts of the country, overall contamination through deposition to terrestrial and aquatic ecosystems and soiling and aesthetic damage by corroding and degrading buildings and monuments.[194]

Ground level ozone pollution is typically formed through reactions involving VOC and NO_X in the lower atmosphere in the presence of sunlight. In humans, exposure to ozone can irritate the respiratory system, reduce lung function and aggravate asthma and other lung diseases.[195] Several groups are at increased risk for ozone-related health effects, including people with asthma, children, older adults, and outdoor workers. In addition ozone has effects on vegetation and ecosystems.[196] These effects include visible foliar injury, impacts on tree growth, productivity and carbon storage, and crop yield loss.[197] The proposed EFF sulfur and RVP controls would reduce emissions of NO_X and VOCs which

[184] See 79 FR 23414 (April 28, 2014).

[185] See 72 FR 8428 (February 26, 2007).

[186] See 40 CFR part 80, subpart O.

[187] See 40 CFR part 80, subpart L.

[188] See CAA section 211(c)(1)(A).

[189] See CAA section 211(c)(1)(B).

[190] See 40 CFR 50.18 and 50.19.

[191] See 78 FR 3103–3104 (January 15, 2013).

[192] U.S. EPA, ''2009 Final Report: Integrated Science Assessment for Particulate Matter,'' EPA/600/R–08/139F, at chapter 2 (sections 2.3.1–2) and chapter 6.

[193] *Id.* at chapter 7.

[194] *Id.* at chapter 2 (sections 2.5.1–3) and chapter 9.

[195] U.S. EPA, ''2013 Final Report: Integrated Science Assessment for Ozone,'' EPA/600/R–10/076F, at chapter 6.

[196] See the NAAQS for Ozone (80 FR 65292, 65302–65340, October 26, 2015).

[197] See 80 FR 65470 (October 26, 2015). A more detailed discussion of the health and welfare effects of these pollutants can be found in the final rules for the NAAQS for Ozone (80 FR 65292, 65302–65340, October 26, 2015), NAAQS for PM (78 FR 3087, January 15, 2013), and their ISAs, which are available at *https://www.epa.gov/isa.*

contribute to ambient concentrations of PM and ozone.

Natural gasoline can have high benzene content, potentially resulting in high levels of benzene in EFF. The EPA's Integrated Risk Information System (IRIS) database lists benzene as a known human carcinogen.[198] Benzene causes leukemia by all routes of exposure, and exposure is associated with additional health effects, including genetic changes in both humans and animals and increased proliferation of bone marrow cells in mice.[199] A number of adverse noncancer health effects including blood disorders, such as pre leukemia and aplastic anemia, have also been associated with long-term exposure to benzene.[200] We believe that the EFF benzene standard, when finalized, will limit benzene exhaust and evaporative emissions from FFVs that are fueled by EFF. In addition, it will limit evaporative benzene emissions from EFF distribution systems.

In sum, we are proposing that emission products of EFF will endanger public health and welfare. FFVs represent more than 6 percent of the current vehicle fleet and approximately 25 percent of new light duty vehicles produced in 2014. Given that FFVs tend to be newer vehicles that are driven more than older vehicles, FFVs account for nearly 8 percent of all light duty vehicle miles traveled in 2015.[201] Thus, we believe that control of sulfur, benzene, and RVP in EFF will lead to significant effective reductions in emissions of these air pollutants and thus, benefits to public health and welfare.

Prior to adopting a fuel control based on a finding that the fuel's emission products contribute to air pollution that can reasonably be anticipated to endanger public health or welfare, under CAA section 211(c)(2)(A), the EPA must consider ''all relevant medical and scientific evidence available, including consideration of other technologically or economically feasible means of achieving emission standards under [section 202 of the CAA].'' The EPA has considered medical and scientific evidence as well as other technologically or economically feasible means of achieving emissions control using vehicle controls. The EPA's analysis of the medical and scientific evidence relating to the emissions impact from EFF is described in more detail in various documents cited earlier, including the MSAT rule, and the Ozone and PM NAAQS final rules and their associated Integrated Science Assessments (ISAs). The EPA has also satisfied the statutory requirement to consider ''other technologically or economically feasible means of achieving emission standards under [section 202 of the CAA].'' This provision has been interpreted as requiring consideration of establishing emission standards under CAA section 202 prior to establishing controls or prohibitions on fuels or fuel additives under CAA section 211(c)(1)(A).[202] In *Ethyl Corp.* v. *EPA,* the court stated that CAA section 211(c)(2)(A) calls for good faith consideration of the evidence and options, not for mandatory deference to regulation under CAA section 202 compared to fuel controls.[203] As a general matter, under Title II of the CAA, the EPA has adopted a systems-approach towards mobile source standard setting (*i.e.,* the simultaneous promulgation of both engine and fuels requirements, under CAA sections 202 and 211(c)). In so doing, the EPA considers interactions between the designs of vehicles and the fuels they use in order to assure optimum emission performance at minimum cost. The EPA has previously promulgated various emissions standards for FFVs and FFV engines under CAA section 202. These include the 2007 MSAT evaporative emission standards applicable to diurnal and hot soak emissions for FFVs that became fully effective in 2014 and more recently the Tier 3 final rule.[204] In the Tier 3 rule, the EPA proposed both fuel quality and emissions standards for FFVs but only finalized vehicle and engine standards and certification fuel.[205] As previously explained, emissions certification testing of FFVs is required using both the test fuel specified for conventional gasoline vehicles and a high ethanol content FFV test fuel (E83). Regulatory specifications for conventional gasoline emissions certification test fuel have long existed.[206] Regulatory specifications for the high-ethanol content FFV certification test fuel were finalized in the Tier 3 final rule and will become mandatory for MY 2017 FFVs.[207] As previously explained, EFF must be substantially similar to vehicle certification fuel, under CAA section 211(f).[208] These proposed standards for EFF, which expand on the Tier 3 proposal, will therefore restrict sulfur, benzene, and RVP content in EFF and enable compliance with the MSAT benzene evaporative standards as well as Tier 3 emission standards for FFVs that were based on use of advanced emission control technology now in-use by FFVs.

2. Section 211(c)(1)(B)

We are also proposing requirements for sulfur content in EFF and RVP limits for EFF under the second criterion of CAA section 211(c). We believe that sulfur in EFF could significantly impair the emission-control systems expected to be in general use in FFVs and FFV engines. There are well documented studies on the impact of sulfur on emissions control performance of exhaust catalyst systems.[209] Sulfur is a well-known catalyst poison because it inhibits and degrades the emissions control performance of exhaust catalyst systems by selectively binding and reacting, in some instances, with active sites and coating materials.[210] As a general matter, reducing fuel sulfur levels has been the primary regulatory mechanism to minimize sulfur contamination of the catalyst and ensure optimum emissions performance over the useful life of a vehicle. As also explained in the Tier 3 final rule, the impact of sulfur poisoning on exhaust catalyst performance and the relative stringency of the Tier 3 exhaust emissions standards, when considered together make a compelling argument for the virtual elimination of sulfur from

[198] U.S. EPA, ''Toxicological Review of Benzene (Noncancer Effects),'' EPA/635/R–02/001F, at 22.

[199] *Id.* at 72, 108. See also, U.S. EPA, ''Integrated Risk Information System Chemical Assessment Summary: Benzene,'' at Section II, *https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0276_summary.pdf.*

[200] U.S. EPA, ''Toxicological Review of Benzene (Noncancer Effects).'' EPA/635/R–02/001F. See also, Aksoy, M. (1989). ''Hematotoxicity and carcinogenicity of benzene.'' Environ. Health Perspect. 82: 193–197; See also, Goldstein, B.D. (1988). ''Benzene toxicity.'' Occupational medicine. State of the Art Reviews. 3: 541–554.

[201] EIA, ''2015 Annual Energy Outlook,'' *http://www.eia.gov/forecasts/aeo/pdf/0383(2015).pdf.*

[202] See *Ethyl Corp.* v. *EPA,* 541 F.2d. 1, 31–32 (D.C. Cir. 1976).

[203] *Id.* at 32, n.66.

[204] See 72 FR 8473 (February 26, 2007) and 79 FR 23414 (April 28, 2014).

[205] See 79 FR 23558 (April 28, 2014).

[206] See, *e.g.,* ''The effects of Ultra-Low Sulfur Gasoline on Emissions form Tier 2 Vehicles in the In-Use Fleet,'' EPA–420–R–14–002. See also, Durbin, T. ''The effect of fuel sulfur on NH_3 and other emissions from 2000–2001 model year vehicles.'' Atmospheric Environment 38, 2699 (2004).

[207] See 79 FR 23414 (April 28, 2014) and 40 CFR 1065.725.

[208] See 40 CFR 1801–12.

[209] See the Tier 3 final rule, 79 FR 23414 (April 28, 2014).

[210] *Nat'l Petrochemical & Refiners Ass'n* v. *EPA,* 287 F.3d 1130, 1143 (D.C. Cir. 2002); See also section IV.6 of the Tier 3 final rule preamble, which describes the substantial adverse effect of high gasoline sulfur levels on emission control devices or systems for Tier 3 vehicles and engines (79 FR 23463–23474, April 28, 2014).

fuel used in vehicles equipped with catalytic aftertreatment.

There are currently no specifications in 40 CFR part 80 for natural gasoline used as an EFF blendstock that would ensure that the resulting EFF is suitable for use in FFVs. Additionally, natural gasoline can have high sulfur content, potentially resulting in high levels of these harmful components in EFF that could impair the performance of FFV emissions control catalysts. As also previously explained, the EPA set vehicle and engines standards, under CAA section 202, in the recent Tier 3 rule that relied on sulfur reduction in gasoline. FFVs utilize the same aftertreatment catalysts as gasoline vehicles, which are adversely affected by sulfur in EFF in the same way as sulfur in gasoline. Therefore, we believe that control of sulfur in EFF to 10 ppm (the same as sulfur in gasoline) will significantly improve the efficiency of emissions control systems currently in use in FFVs and continue prevention of the substantial adverse effects of sulfur levels on the performance of such emissions control systems when they operate on any fuel.

We also believe that high RVP levels in EFF could impair FFV evaporative emissions control systems. FFVs are equipped with evaporative canisters similar to conventional gasoline vehicles. These canisters have limited storage abilities and fuel vapors must be ''purged'' each time the engine is operated. FFVs with properly designed evaporative control systems are equipped with purging systems that remove enough vapor as well as control fuel flow rates so that purged vapor does not increase emissions. They are also designed to regenerate their vapor storage capacity so that vapor can continue to be controlled. However, when FFVs are operated on EFF with RVP levels above the test fuels used during FFV certification the evaporative canisters on FFVs can be overloaded resulting in excessive evaporative emissions. Therefore, we believe that the RVP of EFF must be controlled to ensure that FFVs are not subjected to EFF that exceeds the RVP of test fuels used during FFV certification.

CAA section 211(c)(2)(B) requires that, prior to adopting a fuel control based on a significant impairment to vehicle emission-control systems, the EPA consider available scientific and economic data, including a cost benefit analysis comparing emission-control devices or systems which are or will be in general use that require the proposed fuel control with such devices or systems which are or will be in general use that do not require the proposed fuel control. As previously explained, there are existing emissions standards for FFVs and FFV engines under CAA section 202, including the MSAT evaporative emission standards applicable to diurnal and hot soak emissions for FFVs,[211] and more recently the Tier 3 final rule.[212] For these purposes, the EPA is relying on the Regulatory Impact Analyses (RIAs) for the Tier 3 rule and 2007 MSAT rule.[213] We believe that the emissions control technology being used to meet these existing standards would be significantly impaired by operation on EFF with annual average sulfur levels greater than 10 ppm and current RVP levels. Our analysis of the available scientific and economic data can also be found in the Tier 3 RIA. The EPA is relying on the detailed analysis of the environmental benefits of the Tier 3 sulfur standards (Chapters 6 and 8), the analysis of the technological feasibility and cost of controlling sulfur to the levels established in the Tier 3 final rule (Chapters 4 and 5), and the cost-effectiveness analysis of the sulfur control and motor vehicle and engine emission standards (Chapter 8). These EFF requirements, when finalized, will ensure that emission control devices available for general use in FFVs can continue to meet existing emission standards and would not be significantly impaired by EFF with current sulfur and RVP levels, as well as when EFF is made with natural gasoline.

3. Section 211(c)(2)(C)

CAA section 211(c)(2)(C) requires that prior to prohibiting a fuel or fuel additive, the EPA must make a finding that such prohibition will not cause the use of another fuel or fuel additive ''which will produce emissions which endanger the public health or welfare to the same or greater degree'' than the prohibited fuel or additive. This finding is required by the CAA only prior to prohibiting a fuel or additive, not prior to controlling a fuel or additive.[214] Since the EPA is not proposing to prohibit use of sulfur, benzene, or RVP, but rather controlling their levels in EFF, this finding is not required for this proposed rulemaking. Nevertheless, the EPA does not believe that these various controls for EFF will result in the use of any other fuel or additive that will produce emissions that will endanger public health or welfare to the same or greater degree as the emissions produced by EFF with their current levels.

4. Section 211(f)

The EPA is also proposing to regulate the elemental composition of EFF, as we believe that elements that poison (deactivate) vehicle emissions control catalysts such as anions or cations (*e.g.,* metals) can exist naturally in petroleum deposits or can be added in the process of extracting such deposits. They can also become entrained in either petroleum or ethanol products through contamination or could purposefully be added to a fuel. As a result, the EPA limited the elemental content for gasoline and gasoline additives to CHONS.[215] Refiners are required to limit the elemental composition of the gasoline they produce to CHONS, except for trace quantities of other atypical elements. We are proposing to regulate EFF to consist only of CHONS in the same fashion.

As also previously explained, there are currently no specifications in 40 CFR part 80 on the quality of natural gasoline used as EFF blendstock that would ensure that the resulting EFF is suitable for use in FFVs. Were natural gasoline used in EFF to contain non-CHONS elements (*e.g.,* metals and salts), either naturally or through addition, it could also quickly destroy the effectiveness of FFV emissions control catalysts. Thus, significant concern exists about the potential increase in FFV emissions that might result from the unregulated use of natural gasoline of uncontrolled quality as an EFF blendstock. Additionally, other components of EFF (*e.g.,* ethanol and additives) can also contain non-CHONS elements that can adversely affect FFV emissions control catalysts. We are also concerned about the non-CHONS content of these components and the resulting effect on emissions from FFVs.

CAA section 211(f) requires fuel and fuel additives introduced into commerce to be ''substantially similar'' to fuels or fuel additives used in certification. This requirement applies to all fuels used in motor vehicles, including FFVs. The term ''substantially similar'' is not defined in the CAA and has been interpreted and historically used to regulate the elemental content, molecular structure, and total concentration of fuel and fuel

[211] See 72 FR 8473 (February 26, 2007).

[212] See 79 FR 23414 (April 28, 2014).

[213] The Tier 3 RIA is available at *https://www3.epa.gov/otaq/documents/tier3/420r14005.pdf* and the MSAT RIA is available at *http://www.regulations.gov/#!documentDetail;D=EPA-HQ-OAR-2005-0036-1168.*

[214] See *Ethyl Corp.* v. *EPA,* 541 F.2d. at 32.

[215] See 46 FR 38582 (July 28, 1981).

additives.[216] Current emissions certification testing for FFVs is required using both the test fuel specified for conventional gasoline vehicles (E10, starting in MY 2017 vehicles) and a high ethanol content FFV test fuel (E83). Regulatory specifications for conventional gasoline emissions certification testing have long existed to ensure that atypical elements are not present. Regulatory specifications for the ethanol gasoline blends certification test fuel were finalized in the Tier 3 final rule and will become mandatory for MY 2017 FFVs.[217] Regulatory specifications were also set for the certification fuel for gasoline (E10) in the Tier 3 final rule and will also become mandatory of MY 2017 FFVs. These regulations ensure that FFV exhaust emissions test fuel is composed only of CHONS. Thus, in order for EFF to meet the statutory requirement in CAA section 211(f), it must consist only of CHONS, as is the case for the gasoline and FFV certification test fuels that are used in vehicle testing. That fuels introduced into commerce be CHONS is fundamental to the EPA's understanding of ''substantially similar'' as it relates to both certification fuels for FFVs (*i.e.,* E85 and E10).

We are proposing regulations under CAA section 211(f) that limit elemental composition of EFF to CHONS. We are proposing that parties must demonstrate the elemental composition of EFF using our authority under CAA sections 114 and 208 to establish and maintain records, and make reports.

V. CCS Implementation Under the RFS Program

A. Background

CCS is a potentially important technology for reducing GHG emissions from stationary sources. As described in the final standards of performance for GHG emissions from new, modified, and reconstructed electric utility generating units (''NSPS for EGUs''), it is important to promote deployment and further development of CCS technologies that allow for meaningful reductions in CO_2 emissions from fossil fuel-fired utility boilers.[218] In that rulemaking, the EPA found that partial CCS has been adequately demonstrated, is technically feasible, and can be implemented at reasonable costs.[219] The rulemaking also found that partial CCS provides meaningful emission reductions and its implementation will serve to promote further development and deployment of the technology.[220] We believe that allowing CCS as a technology for reducing lifecycle GHG emissions for renewable fuels under the RFS program would complement the NSPS for EGUs by providing another opportunity for the deployment of this important GHG reduction technology. CCS can also enhance the RFS program by allowing an additional mechanism for renewable fuel producers to significantly reduce their lifecycle GHG emissions associated with the production of renewable fuel.

The EPA has received petitions under the RFS program to apply CCS to reduce the lifecycle GHG emissions associated with ethanol produced as renewable fuel.[221] Under such a process, a renewable fuel producer would capture, treat, and compress CO_2 produced from the ethanol fermentation process. The captured CO_2 stream[222] would be transported and injected deep underground for geologic sequestration (GS), the long-term containment of CO_2 in subsurface geologic formations such as deep saline formations or oil and gas reservoirs.[223] The capture and geologic sequestration of the CO_2 generated from ethanol fermentation could substantially reduce the lifecycle GHG emissions associated with the production of renewable fuel.

In this action we are proposing registration, recordkeeping, reporting, and RIN generation requirements that the EPA would use if we were to allow CCS as a lifecycle GHG emissions reduction technology in the context of the RFS program. At this time, the EPA is not proposing to add a generally applicable CCS technology to an approved pathway in Table 1 to 40 CFR 80.1426, but instead will evaluate, on an individual basis, petitions that are received pursuant to 40 CFR 80.1416 that propose to use CCS. In this action we are proposing regulations that would generally govern the use of CCS if and when such a pathway is approved. Were a renewable fuel pathway involving use of CCS to be created in the future, use of the pathway in the context of the RFS program would remain voluntary and all other applicable existing RFS regulations would apply.[224] As discussed below, this proposal relies substantially on other relevant EPA regulatory programs already in place concerning the disposition of captured CO_2.

B. Existing Regulatory Frameworks Related to CCS

The EPA has already developed an effective and coherent regulatory framework to ensure the long-term, secure, and safe storage of large volumes of CO_2. This includes air-side monitoring and reporting requirements promulgated under the CAA through the GHG Reporting Program (GHGRP) and Safe Drinking Water Act (SDWA) Underground Injection Control (UIC) Program requirements that regulate the underground injection of fluids[225] in a manner that ensures protection of underground sources of drinking water (USDWs).[226] Together, the requirements of the GHGRP and the UIC Program provide a regulatory framework that addresses the injection and geologic sequestration of CO_2, and provide the monitoring mechanisms to identify and address potential leakage. This proposal

[216] See, *e.g.,* 73 FR 22277 (April 25, 2008), 56 FR 5352 (February 11, 1991), and 46 FR 38582 (July 28, 1981).

[217] See 79 FR 23414 (April 28, 2014) and 40 CFR 1065.725.

[218] See 80 FR 64548 (October 23, 2015).

[219] See 80 FR 64548, 64558 (October 23, 2015).

[220] See 80 FR 64513 (October 23, 2015). In the NSPS for EGUs, partial CCS refers to CCS with capture of a level of CO_2 emissions lower than 90 percent. To meet the final standard of performance of 1,400 lb CO_2/MWh, a new, highly efficient steam generating EGU would need to capture and store approximately 20 percent of its potential CO_2 emissions.

[221] The petitions have been received pursuant to 40 CFR 80.1416. See *https://www.epa.gov/renewable-fuel-standard-program/pending-petitions-renewable-fuel-pathways* for a list of petitions.

[222] The EPA's GHG Reporting Program defines CO_2 stream as CO_2 that has been captured from an emission source (*e.g.,* a power plant or other industrial facility) or extracted from a CO_2 production well plus incidental associated substances either derived from the source materials and the capture process or extracted with the CO_2. See 40 CFR 98.6. In referring to captured CO_2, this proposal generally uses the terms ''CO_2'' and ''CO_2 stream'' interchangeably.

[223] The petitioners have indicated for purposes of their application that the geologic sequestration of delivered CO_2 would be part of EOR operations, such that the CO_2 would be utilized for oil or gas extraction before ultimately being geologically stored.

[224] The RFS regulations at 40 CFR 80.1401 define advanced biofuel as ''renewable fuel, other than ethanol derived from cornstarch, that has lifecycle greenhouse gas emissions that are at least 50 percent less than baseline lifecycle greenhouse gas emissions.'' Based on this definition, a future renewable fuel pathway using CCS to produce ethanol as an advanced biofuel could not use cornstarch as a feedstock, but could potentially use other feedstocks (*e.g.,* grain sorghum or barley).

[225] The EPA's UIC regulations define the term fluid to include any material or substance which flows or moves whether in a semisolid, liquid, sludge, gas or any other form or state. See 40 CFR 146.3.

[226] The EPA's UIC regulations define USDW as an aquifer or its portion: (a)(1) Which supplies any public water system; or (2) Which contains a sufficient quantity of ground water to supply a public water system; and (i) Currently supplies drinking water for human consumption; or (ii) Contains fewer than 10,000 mg/l total dissolved solids; and (b) Which is not an exempted aquifer. See 40 CFR 144.3. For more information, see *https://www.epa.gov/uic/general-information-about-injection-wells.*

builds upon these existing regulatory frameworks.

The UIC Program is designed to ensure that injected CO_2 remains isolated from USDWs. The UIC Program regulates the injection of fluids through six categories of injection wells (*i.e.,* Classes I through VI). Class II wells are used to inject fluids associated with oil and natural gas production activities, including CO_2 injection for enhanced oil or gas recovery (EOR). Class II requirements address site characterization, area of review, well construction (*e.g.,* casing and cementing), well operation (*e.g.,* injection pressure), injectate sampling, mechanical integrity testing, plugging and abandonment, financial responsibility, and reporting. Class VI wells are used to inject CO_2 for geologic sequestration.[227] The Class VI requirements address comprehensive site characterization and project area delineation, computational modeling of the area of review, financial responsibility, reporting and recordkeeping, injection well construction, operation and permitting, testing and monitoring (*e.g.,* of the well and project area), post-injection site care, and site closure.[228] These requirements are built upon decades of experience regulating underground injection wells and help ensure the safe and secure sequestration of large volumes of CO_2 for long term containment.

40 CFR part 98, subpart RR, of the GHGRP establishes an accounting framework for the geologic sequestration of CO_2, including monitoring and reporting requirements.[229] The NSPS for EGUs specifically requires that any affected EGU that captures CO_2 to meet the applicable emissions limit must transfer the captured CO_2 to a facility that reports under the GHGRP, 40 CFR part 98, subpart RR.[230] Under subpart RR, facilities must: Report basic information on the amount of CO_2 received for injection; develop and implement an EPA-approved monitoring, reporting, and verification (MRV) plan; and report the amount of CO_2 sequestered using a mass balance approach and annual monitoring activities.[231]

For the purposes of this proposed rulemaking, a facility is conducting geologic sequestration if it is reporting under 40 CFR part 98, subpart RR.[232] The facility may hold either a Class II or Class VI permit.[233] The petitions that EPA has received to date under 80.1416 requesting EPA evaluation of renewable fuel production pathways using CCS have stated that the geologic sequestration of CO_2 would be part of EOR operations before ultimately being geologically sequestered.[234] The following sections discuss proposed requirements that the EPA would use if we were to allow CCS as a lifecycle GHG emissions reduction technology in the context of the RFS program.

C. Proposed Requirements for Use of CCS in Renewable Fuel Production

This rulemaking proposes and seeks comment on a series of registration, recordkeeping, reporting, and additional requirements associated with the use of CCS as a lifecycle GHG emissions reduction technology in the context of the RFS program. The proposed requirements would apply only to renewable fuel producers that seek to achieve the GHG reductions necessary to qualify for a given renewable fuel pathway by using CCS as part of the renewable fuel production process. By building on the foundation established in the GHGRP and UIC Program, this proposal seeks to contribute to a consistent approach across the EPA for facilities that use CCS. It is important to note that in this action the EPA specifically seeks comment only on the proposed requirements for use of CCS as part of the RFS program. This proposed action is not seeking comments on the recently finalized NSPS for EGUs, nor does it seek comment on any of the requirements under the UIC Program or the GHGRP. Any such comments that are submitted on those programs will be considered beyond the scope of this rulemaking. Furthermore, EPA is not proposing to consider use of CCS in any particular application in the RFS program at this time, and any comments suggesting its application in particular renewable fuel production pathways will also be considered beyond the scope of this rulemaking.

1. Registration

A renewable fuel producer seeking to use a pathway involving CCS would be required to submit a CCS plan for review and approval by the EPA's Office of Transportation and Air Quality as part of the facility registration requirements under 40 CFR 80.1450. The CCS plan would contain fundamental information regarding various elements of a given CCS project, including information related to sequestration processes and energy usage. This information is needed for the EPA to determine the amount of geologically sequestered CO_2 that should be considered credited for purposes of lifecycle GHG emissions. The CCS plan would also include a contract or contracts between the renewable fuel producer (supplier of the CO_2 stream) and the designated sequestration facility (if not the same entity).

The EPA is proposing that the CCS plan the renewable fuel producer submits at registration would contain the following information:

1. A statement of affirmation by the sequestration facility that the sequestration facility will inject CO_2 captured from the renewable fuel production process in accordance with an MRV plan developed pursuant to 40 CFR part 98, subpart RR.[235]

2. A statement of affirmation by the renewable fuel producer using a method approved by EPA—as part of the

[227] CO_2 that is injected into oil and gas reservoirs for the primary purpose of enhancing the recovery of oil or gas (ER) are regulated as Class II enhanced recovery wells under the UIC Program. Transitions to a Class VI permit would be considered if the purpose of the injection activity changes from oil or gas production, or if the risk of endangerment to USDWs is likely to increase and cannot be addressed by the Class II UIC Program.

[228] For a summary of the UIC Program and more details on the UIC Class VI Rule finalized in December 2010, see the UIC Geologic Sequestration of Carbon Dioxide Web site at *https://www.epa.gov/uic.*

[229] More information on the relationship between the 40 CFR part 98, subpart RR, of the GHGRP, and the UIC program can be found in the preamble to subpart RR (75 FR 75060, December 1, 2010) and the preamble to the UIC Class VI Final Rule (75 FR 77230, December 10, 2010).

[230] See 40 CFR 60.5555(f). Any affected unit that captures CO_2 to meet the applicable emissions limit must report, under 40 CFR part 98, subpart RR, if the captured CO_2 is injected onsite. If the captured CO_2 is sent offsite, there is a requirement that the captured CO_2 that the permittee sends offsite of the EGU facility is transferred to an entity that is subject to the requirements of subpart RR.

[231] See 40 CFR 98.446(a)(1), 40 CFR 98.446(b)(4), 40 CFR 98.448, 40 CFR 98.446(f)(9) and (10), and 40 CFR 98.446(f)(12).

[232] Pursuant to 40 CFR 98.440(a), ''[t]he geologic sequestration of carbon dioxide (CO_2) source category comprises any well or group of wells that inject a CO_2 stream for long-term containment in subsurface geologic formations.''

[233] Pursuant to 40 CFR 98.440(c), ''[t]his source category does not include a well or group of wells where a CO_2 stream is being injected in subsurface geologic formations to enhance the recovery of oil or natural gas unless one of the following applies: (1) The owner or operator injects the CO_2 stream for long-term containment in surface geologic formations and has chosen to submit a proposed monitoring, reporting, and verification (MRV) plan to EPA and received an approved plan from EPA (2) [t]he well is permitted as Class VI under the Underground Injection Control program.''

[234] The petitions have been received pursuant to 40 CFR 80.1416. See *https://www.epa.gov/renewable-fuel-standard-program/pending-petitions-renewable-fuel-pathways* for a list of petitions.

[235] Submission of registration materials under the RFS program pursuant to 80.1450 and review of an MRV plan pursuant to 40 CFR 98.448 may occur concurrently. The MRV plan must be approved prior to approval of registration under the RFS program.

response to a petition pursuant to 40 CFR 80.1416—that lifecycle GHG emissions associated with renewable fuel produced are no greater than a specified threshold lifecycle GHG emissions value. We expect that the lifecycle GHG emissions value would be calculated according to the method discussed in the technical support document available in the docket for this action. The EPA seeks comment on this method.

3. If the CO_2 is or will be transferred offsite to a sequestration facility, a contract or contracts between the renewable fuel producer and sequestration facility and any intermediate or necessary parties demonstrating:

a. The sale or transfer of CO_2 from the renewable fuel producer to the sequestration facility.

b. The duty of the sequestration facility to inject the CO_2 for geologic sequestration.

c. The geologic sequestration facility's duty to notify the renewable fuel producer of CO_2 surface leaks within 24 hours of detection.

d. Acknowledgement of the geologic sequestration facility's duty to help the renewable fuel producer develop a remediation plan within 30 days of the EPA being notified by the renewable fuel producer of a surface leak, providing information related to the date(s) the surface leak occurred, the GHGRP facility identification number of the geologic sequestration facility, a detailed description of how the leak occurred, the amount of CO_2 that leaked, and a description of plans by the sequestration facility to remediate the leak. The remediation plan would need to be submitted to the EPA within 30 days of the EPA being notified by the renewable fuel producer of the surface leak.

e. Acknowledgement of the geologic sequestration facility's duty to notify the renewable fuel producer within 30 days of its annual submission to the EPA of all reports required pursuant to 40 CFR part 98 subpart RR.

f. Acknowledgement of the geologic sequestration facility's duty to notify the renewable fuel producer if the sequestration facility submits a request pursuant to 40 CFR 98.441 for discontinuation of reporting under 40 CFR part 98 subpart RR or ends sequestration operations.

g. Acknowledgement of the geologic sequestration facility's duty to retain, for at least five years, all records required by the applicable provisions of the UIC program under 40 CFR part 146, subpart H, and the GHGRP pursuant to 40 CFR 98.3.

In addition to requiring a CCS plan at the time of registration, the EPA also proposes that the renewable fuel producer must provide a description of the CO_2 capture and sequestration process and, if the CO_2 is transferred to a sequestration facility after capture, a description of the transfer process of the CO_2 from the renewable fuel production facility to the sequestration facility. This description would be verified by a third-party engineer as part of the required engineering review and must include the mode of transport (*e.g.,* whether CO_2 is transferred by pipeline or by container), as well as the projected annual quantity of CO_2 transferred. The EPA also seeks comment on what, if any, additional registration requirements are necessary.

2. Reporting and Recordkeeping

The proposed requirements associated with use of CCS as part of the RFS program would rely substantially, but not exclusively, on the requirements, processes, and methodologies established in the GHGRP and the UIC Program.

The sequestration facility injecting CO_2 captured from the renewable fuel production process would submit an MRV plan and would be required to meet all other applicable requirements under 40 CFR part 98, subpart RR, including all applicable reporting requirements. Subpart RR provides a mechanism for facilities to account for the quantity of CO_2 sequestered on an annual basis through a mass balance approach.[236] Additionally, renewable fuel producers that capture CO_2 in order to sequester it underground would also be subject to all applicable requirements under 40 CFR part 98, subpart PP, of the GHGRP, which is applicable to suppliers of CO_2. Importantly, under subpart PP, CO_2 suppliers are required to report the annual quantity of CO_2 transferred offsite, and indicate the CO_2's known end use, including geologic sequestration.[237]

Building on the foundation established by the UIC Program and GHGRP helps contribute to a consistent and transparent approach for facilities that use a renewable fuel production pathway involving CCS under the RFS program. At the same time, we are proposing several additional reporting and recordkeeping requirements in order to make sure the emissions reduction requirements of the RFS program are met. The EPA is proposing that producers of renewable fuel that achieve the GHG reductions necessary to qualify for a renewable fuel pathway by using CCS as part of the renewable fuel production process would have to calculate the lifecycle GHG emission value (LEV) [238] for each batch of fuel produced using an EPA-approved method, maintain records of these calculations, and periodically report these calculations to the EPA.[239] The renewable fuel producer would also report the electronic GHGRP facility identification number of the geologic sequestration facility and the GHGRP facility identification number of the renewable fuel facility.

We are also proposing provisions in keeping with the reporting termination provisions of 40 CFR 98.441. These provisions establish that a facility reporting in accordance with the requirements of 40 CFR part 98, subpart RR, must continue to report, ''until the Administrator has issued a final decision on an [injection well] owner or operator's request to discontinue reporting [under subpart RR].'' Pursuant to 40 CFR 98.441(b), the facility may discontinue reporting under 40 CFR part 98, subpart RR by making a demonstration that current monitoring and model(s) show that the injected CO_2 stream is not expected to migrate in the future in a manner likely to result in surface leakage or, in the case of UIC

[236] Therefore, renewable fuel producers that achieve the GHG reductions necessary to qualify for a renewable fuel pathway by using CCS that are injecting CO_2 onsite would be subject to all applicable reporting requirements of 40 CFR part 98, subpart RR. These producers must report to the EPA that onsite injection is occurring, that they are reporting in accordance with the requirements of subpart RR, and that no surface leaks occurred during the appropriate compliance period. If the captured CO_2 is injected offsite, the renewable fuel producer would not be considered a source category under subpart RR, but the injecting geologic sequestration facility would be. If the captured CO_2 is injected offsite, we are proposing that at registration the renewable fuel producer would be required to demonstrate the injection is occurring offsite and affirm that the offsite geologic sequestration facility that plans to inject the CO_2 underground will submit a MRV plan and meet all other applicable requirements under subpart RR.

[237] See 40 CFR 98.426. Subpart PP requires suppliers of CO_2 that meet certain applicability requirements to report CO_2 supplied to the economy or injected underground. This includes facilities with production process units that capture and supply CO_2 for commercial applications that capture and maintain custody of a CO_2 stream in order to sequester or otherwise inject it underground. Suppliers of CO_2 under subpart PP must keep records on the mass of CO_2 captured from the relevant production processes. Data from subpart PP includes the amount of CO_2 that leaves the ethanol facility for off-site underground injection and GS.

[238] The LEV for a given fuel is the GHG emissions as calculated per Btu of fuel produced.

[239] A GHG calculation method is discussed in the memorandum, ''Example Method for Calculating Lifecycle Greenhouse Gas Emissions Associated with Renewable Fuel Production including Carbon Capture and Sequestration,'' available in the docket for this action.

Class VI wells, by providing a copy of the applicable UIC Program Director's authorization of site closure. The EPA proposes that renewable fuel producers using a pathway involving CCS would be required to notify the EPA if a participating geologic sequestration facility has filed a request for discontinuation under 40 CFR 98.441 and must update their RFS registration if the participating geologic sequestration facility ends sequestration operations or if the renewable fuel producer intends to sends to CO_2 to a different the geologic sequestration facility.

The EPA is also proposing that, consistent with existing RFS requirements, all records associated with the use of CCS under the RFS program must be kept for five years to be consistent with other RFS program requirements.[240] The five-year records retention period is ubiquitous across the EPA fuels programs and stems from the limitations on bringing enforcement action for civil cases as described in 28 U.S.C. 2462.[241] The EPA seeks comment on alternative or additional reporting, termination of reporting, recordkeeping, and RIN generation requirements that should be considered.

One of the petitions the EPA received suggests an alternative crediting method relating to displacement of naturally occurring CO_2 extracted from domes. The suggested ''displacement approach'' would consider CO_2 from ethanol plants that is captured and sent offsite for a commercial use (*e.g.,* in beverage carbonation, EOR [242]) as a co-product of the ethanol production process that displaces CO_2 from other sources. The emissions that would have occurred from production and use of the displaced CO_2 would then be subtracted (as a credit) from the lifecycle GHG emissions associated with ethanol production. Under a displacement approach, the petition asserts that if the CO_2 from the ethanol process is used for commercial purposes and replaces CO_2 from geologic reservoirs, it would represent a reduction in the lifecycle GHG emissions of the ethanol on the basis that displaced geologic CO_2 remains underground and does not enter the market. The petition further asserts that any surface leakage that occurs during commercial usage would have happened regardless of whether the source of the CO_2 was from a geologic or ethanol fermentation source. Under the displacement method, the petition asserts that it is unnecessary to report or track the CO_2 injected for EOR, along with any leakage or recycling during use in EOR, as long as the renewable fuel facility can demonstrate that they are displacing carbon that would have otherwise been supplied by a geologic source.[243] A report from the National Energy Technology Laboratory (NETL) suggests that the market for CO_2 is supply-limited, in flux, and will rely on industrial sources for expansion, making long-term displacement by fermentation sources difficult to determine.[244] The EPA is not proposing this crediting approach, but seeks comment on its use.

3. RIN Generation

The EPA is proposing that a renewable fuel producer using CCS to achieve the GHG reductions necessary to qualify for a given renewable fuel pathway can only generate RINs for a batch of renewable fuel if the lifecycle GHG emissions for the batch are determined to be below the threshold value for the applicable pathway by a method approved by the EPA as part of its response to a petition pursuant to 40 CFR 80.1416.[245] The EPA is also proposing that a renewable fuel producer using a pathway involving CCS cannot generate RINs in a given calendar year after the annual GHG report deadline in 40 CFR 98.3 for the geologic sequestration facility unless the renewable fuel producer has received verification from the geologic sequestration facility that the geologic sequestration facility's applicable reporting obligations under 40 CFR part 80, subpart RR have been satisfied.

4. Surface Leaks

We are proposing that a renewable fuel producer using CCS to achieve the GHG reductions necessary to qualify for a given renewable fuel pathway could only generate RINs for a batch of renewable fuel if the calculated lifecycle GHG emissions for the batch are below the threshold value for the applicable pathway. In the context of using CCS as a lifecycle GHG emissions reduction technology in the RFS program, a calculation of lifecycle GHG emissions would consider whether CO_2 emissions through any potential surface leakage [246] pathways identified in an EPA-approved MRV plan as specified in 40 CFR 98.448 could cause the lifecycle GHG emissions to exceed the threshold value required for the approved pathway under 40 CFR 80.1416.[247] While small, sporadic surface leaks may not have a significant impact on the lifecycle GHG emissions of a fuel, particularly if the GHG emissions are calculated on a 365 day rolling average, large surface leaks could significantly increase the lifecycle GHG emissions for batches of renewable fuels produced using a CCS pathway, which could potentially preclude RIN generation for those batches. Although the EPA believes such surface leaks would rarely occur, we are proposing a series of RIN validation and remediation requirements that would be applied to potentially invalid RINs (PIRs) generated for renewable fuel produced using CCS. These proposed requirements would be in addition to any validation and remediation requirements under the existing RFS program.[248]

[240] See 40 CFR 80.1454(n).

[241] 28 U.S.C. 2462 states that ''Except as otherwise provided by Act of Congress, an action, suit, proceeding for the enforcement of any civil fine, penalty, or forfeiture, pecuniary or otherwise, shall not be entertained unless commenced within five years from the date when the claim first accrued[.]''

[242] CO_2 injected for GS (in the case where EOR is not occurring) would not be considered under this approach because no alternative sources of CO_2 are displaced.

[243] The displacement approach is further discussed in the memorandum, ''Example Method for Calculating Lifecycle Greenhouse Gas Emissions Associated with Renewable Fuel Production including Carbon Capture and Sequestration,'' available in the docket for this action.

[244] ''Near-Term Projections of CO_2 Utilization for Enhanced Oil Recovery,'' DOE/NETL–2014/1648.

[245] An example of a GHG calculation method is discussed in the memorandum, ''Example Method for Calculating Lifecycle Greenhouse Gas Emissions Associated with Renewable Fuel Production including Carbon Capture and Sequestration,'' available in the docket for this action. Rather than assigning specific emission limits for individual stages of the CCS process, the example method would use facility-specific data to calculate a lifecycle GHG emission value for the renewable fuel produced, which could account for small amounts of surface leakage and equipment usage.

[246] Surface leakage means the movement of the injected CO_2 stream from the injection zone to the surface and into the atmosphere, indoor air, oceans, or surface water. See 40 CFR 98.449.

[247] As discussed above, EPA proposes that at the time of registration, the renewable fuel producer must demonstrate, using an EPA-approved approach, that lifecycle GHG emissions associated with renewable fuel produced are no greater than a specified threshold lifecycle emissions value. An example of a GHG calculation method is discussed in the memorandum, ''Example Method for Calculating Lifecycle Greenhouse Gas Emissions Associated with Renewable Fuel Production including Carbon Capture and Sequestration,'' available in the docket for this action.

[248] In the RFS QAP rulemaking, the EPA established an administrative process to help identify PIRs and help determine if those PIRs were invalidly generated. See 79 FR 42078 (July 18, 2014). Under the administrative process described in 40 CFR 80.1474, designated parties can identify a PIR (*e.g.,* the renewable fuel producer, a third-party auditor under QAP, or the EPA), and the renewable fuel producer has an opportunity to demonstrate the validity of the RIN or take appropriate corrective action within certain timeframes depending on the party that identified the PIR. If a renewable fuel producer fails to

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A key element of the proposed surface leak remediation process is the timely reporting of surface leaks by the renewable fuel producer to the EPA. Under 40 CFR part 98, subpart RR, of the GHGRP, the geologic sequestration facility is required to develop a strategy for detecting and quantifying surface leakage of CO_2 from the geologic sequestration facility.[249] Under the proposed surface leak requirements, the renewable fuel producer would need to report that no surface leaks that could cause the lifecycle GHG emissions to exceed the threshold value required for the approved pathway under 40 CFR 80.1416 occurred during the appropriate compliance period. Should a surface leak occur, under the proposed surface leak remediation requirements the renewable fuel producer would need to report to the EPA that detection of a surface leak occurred at a geologic sequestration facility within 24 hours of notification by the geologic sequestration facility that a leak has been detected.[250] To help limit the number of affected RINs, the EPA also proposes that such emissions, once detected and reported, would result in a suspension of the renewable fuel producer's ability to generate RINs under that pathway.[251] Failure to notify the EPA of a surface leak, submit a remediation plan, or take corrective actions may result in a suspension of the renewable fuel producer's RFS registration. We recognize that the 24-hour notification period may appear to present logistical challenges. However, we envision that a simple message from the renewable fuel producer to the EPA's EMTS support line would suffice to satisfy this requirement. We believe that allowing longer time periods would increase the number of RINs affected by the surface leak and further complicate the resolution of the PIR administrative process. We seek comment on whether a longer reporting timeframe is appropriate.

Under the proposed surface leak remediation process, the renewable fuel producer would need to submit a remediation plan to the EPA for approval within 30 days of notifying the EPA of the surface leak. The remediation plan would:

1. If possible, demonstrate that the PIRs are not invalid. For example, the producer could provide calculations showing that the surface leak did not result in lifecycle GHG emissions exceeding the GHG emission reduction threshold required for the renewable fuel production pathway for which RINs were previously generated and for future RINs that would be generated using the CCS pathway.[252]

2. Describe corrective actions that:

a. When taken, would remediate the surface leak and that the renewable fuel producer working with the geologic sequestration facility was taking all necessary steps to ensure a high likelihood that no further CO_2 would be emitted that would cause the lifecycle GHG emissions to exceed the threshold value required for the approved pathway.[253] Such demonstration may require the modification of the producer's registration, structural or other alterations to the geologic sequestration facility, or other steps as needed.

b. Demonstrate how the renewable fuel producer intends to take corrective action for any PIRs resulting from the surface leak. Corrective actions that could be part of a remediation plan could include retiring the PIRs or purchasing and retiring replacement RINs under 40 CFR 80.1474.

Again, we recognize that the 30-day period for renewable fuel producers to prepare and submit a remediation plan may appear to be a short time frame. However, we note that if the surface leak was immaterial (*i.e.,* a leak so small that affected RINs generated under a CCS pathway would continue to meet the applicable lifecycle GHG reduction threshold), 30 days should be sufficient for a renewable fuel producer to demonstrate that affected RINs are not invalid and resume generating RINs from a CCS pathway. We believe that renewable fuel producers wishing to generate RINs using a CCS pathway would want to remediate the issues as quickly as possible to begin generating RINs using that pathway again. Further, any the corrective actions described in the remediation plan do not need to be implemented within 30 days. Nonetheless, we seek comment on whether we should allow renewable fuel producers generating RINs from a CCS pathway more time to prepare and submit a remediation plan.

Under the existing regulations, producers can already take corrective action under the options above. However, we are proposing that producers generating RINs under a CCS pathway would need to provide additional information to that already required under the PIR administration process (*e.g.,* adjusted calculated GHG emissions for affected RINs). This information would help the producer demonstrate whether the affected RINs continued to meet the applicable GHG reduction threshold.

Under this approach, the renewable fuel producer is responsible for submitting the remediation plan and ensuring that surface leaks are remediated at the geologic sequestration site prior to the further generation of RINs under a CCS pathway. We believe that continuing to have the renewable fuel producer ultimately responsible for all aspects related to the valid generation of RINs is consistent with our goals of promoting compliance within the RFS. However, we seek comment on this approach.

We are proposing that all RINs generated under a CCS pathway during the five years preceding the surface leak would be PIRs in the event of a surface leak at the facility sequestering CO_2 from the renewable fuel production facility. Therefore, the GHG emissions attributable to the leak would be applied equally to all PIRs. If the producer could demonstrate that the average calculated GHGs for each RIN continued to meet the RFS GHG threshold requirements, then under this proposed approach those PIRs would not be invalid. If the calculated GHG emissions for the PIRs fell below the RFS GHG reduction threshold, then the producer would

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demonstrate that the PIRs are valid (as determined by the EPA), corrective action from the renewable fuel producer involves either retiring or replacing the PIR. If the producer fails to retire or replace the PIR, the parties that own or used those RINs for compliance may become responsible for retiring or replacing the PIRs.

[249] See 40 CFR 98.448.

[250] As discussed above, if the CO_2 is transferred offsite from a renewable fuel facility to a sequestration facility, then at registration the renewable fuel producer must submit a contract(s) demonstrating the sequestration facility's duty to notify the renewable fuel producer of CO_2 surface leaks within 24 hours of detection. The producer must then report detection of the surface leak to the EPA within 24 hours of receiving this notification or otherwise becoming of the surface leakage. The EPA recognizes that it may take some time for the geologic sequestration facility to determine if a leak, as defined in 40 CFR 98.449, has in fact occurred.

[251] It should be noted that the renewable fuel producer could continue to generate RINs using non-CCS pathways if they are able to produce renewable fuel under another approved pathway.

[252] We envision that one way that a renewable fuel producer could mitigate the effects of a surface leak would be to sequester GHGs in excess of the GHG reduction threshold for the D-Code for RINs generated under the CCS pathway. For example, for a D5 RIN generated under a CCS pathway, a renewable fuel producer could reduce GHGs by 53 percent (instead of the minimum threshold of 50 percent). Over the course of five years of RIN generation, this over-compliance could shield the producer from all but the largest of surface leaks. We believe that parties that purchase these RINs for compliance may drive renewable fuel producers to over-comply in order to ensure that the RINs remain valid in the event of a surface leak. The remediation plan process is an opportunity to allow the renewable fuel producer to demonstrate that PIRs from surface leaks are not invalid.

[253] This demonstration must include an evaluation of any potential surface leakage pathways identified in an EPA-approved MRV plan as described in 40 CFR 98.448.

need to retire and/or replace all of the PIRs.

Under the proposed remediation process, failure to submit a remediation plan or take appropriate corrective action would trigger the procedures outlined in 40 CFR 80.1474 as discussed in the following paragraph. In addition, the EPA would only allow the renewable fuel producer to generate RINs using a CCS pathway after the EPA approves a remediation plan and the renewable fuel producer takes appropriate corrective action. If a renewable fuel producer does not notify the EPA of a surface leak within 24 hours of detection, stop RIN generation as described above, and comply with the PIR administrative procedures outlined in 40 CFR 80.1474, the renewable fuel producer would be deemed to have failed to have taken corrective action and all RINs generated under the CCS pathway during the five years preceding the leak could be considered invalid. However, the EPA is proposing that RINs generated under the CCS pathway prior to the five years preceding the leak would not potentially invalid.

The EPA believes that the proposed remediation process as a supplement to the existing PIR administrative process would allow renewable fuel producers an opportunity to remediate PIRs resulting from surface leaks without going through the process of replacing all RINs generated using a CCS pathway prior to the surface leak. The EPA recognizes that renewable fuel producers that generate RINs from a CCS pathway may not be able to replace RINs in the case of a large surface leak. Although we do not believe this is likely to occur, we seek comment on alternative corrective actions renewable fuel producers could take in order to remediate PIRs resulting from the surface leak. We also seek comment on the proposed remediation process and whether there is any additional information we should require of renewable fuel producers to ensure that PIRs resulting from surface leaks are appropriately addressed.

D. Lifecycle GHG Emissions Analysis of Renewable Fuel Produced in Conjunction With CCS

Through amendments to the CAA enacted as part of EISA, Congress established specific lifecycle GHG emission thresholds for each of four types of renewable fuels, requiring a percentage reduction compared to lifecycle GHG emissions for gasoline or diesel (whichever is being replaced by the renewable fuel) sold or distributed as transportation fuel in 2005. For example, the CAA requires a 50 percent reduction in order for a fuel to be classified as advanced biofuel.

Determining whether a fuel's lifecycle GHG emissions meet a threshold level of lifecycle GHG reduction requires a comprehensive evaluation of the lifecycle GHG emissions of the renewable fuel as compared to the lifecycle GHG emissions of the baseline gasoline or diesel fuel that it replaces. As mandated by CAA section 211(o), the lifecycle assessment must evaluate the aggregate quantity of GHG emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes) related to the full fuel lifecycle, including all stages of fuel and feedstock production, distribution, and use by the ultimate consumer.

As discussed above, the EPA proposes that at the time of registration, the renewable fuel producer must affirm that when using an EPA-approved approach, lifecycle GHG emissions associated with renewable fuel produced will be no greater than a specified threshold lifecycle emissions value. The lifecycle GHG calculation would be based in part on the amount of CO_2 injected and would account for any CO_2 lost during injection and recycling as well as energy used in the injection and recycling process. The renewable fuel producer would need to keep appropriate records and report data on a regular basis to demonstrate that the fuel produced achieved the required lifecycle value and was accurate over time. The EPA discusses calculating lifecycle GHG emissions for renewable fuel produced using CCS in greater depth a memorandum to the docket and requests comment on the approaches discussed and the example method provided.[254]

VI. Renewable Fuels Produced From Short-Rotation Trees

The EPA is proposing to approve new fuel pathways for ethanol and naphtha produced from short-rotation hybrid poplar and willow using a production process that converts cellulosic biomass to fuel for the generation of cellulosic biofuel (D-code 3) RINs. We are also proposing to approve new fuel pathways for diesel, jet fuel, and heating oil produced from short-rotation hybrid poplar and willow using a production process that converts cellulosic biomass to fuel for the generation of cellulosic biomass-based diesel (D-code 7) RINs. As discussed in this section, the EPA's analysis shows that fuel produced from short-rotation hybrid poplar and willow using a variety of processing technologies meets the 60 percent GHG emissions reduction threshold needed to qualify as cellulosic biofuel. This section includes an overview of short-rotation hybrid poplar and willow growing systems, and explains our analysis of the lifecycle GHG emissions associated with these fuel pathways.

A. Background and Scope of Analysis

As part of the RFS2 final rule, the EPA analyzed various biofuel production pathways to determine whether fuels produced through those pathways meet minimum lifecycle GHG reduction thresholds specified in the CAA for different categories of biofuel (*i.e.,* 60 percent reduction for cellulosic biofuel, 50 percent reduction for biomass-based diesel and advanced biofuel, and 20 percent reduction for other renewable fuels). The RFS2 final rule focused on fuels that were anticipated to contribute relatively large volumes of renewable fuel by 2022 and thus did not cover all fuels that are contributing or could potentially contribute to the national renewable fuel volumes prescribed in EISA. In the preamble to the rule, the EPA indicated that it had not completed the GHG emissions analyses for several specific biofuel production pathways but that the EPA would complete these analyses through supplemental actions.[255] Since the RFS2 final rule, the EPA has continued to examine additional renewable fuel pathways. In this proposed rulemaking, we present our analysis of lifecycle GHG emissions associated with producing biofuel from short-rotation hybrid poplar and willow. The modeling approach the EPA used for this analysis is the same general approach used in the RFS2 final rule for lifecycle analyses of other biofuels, as described in more detail in section VI.C of this preamble.[256]

The EPA requests public comment on our analysis of the lifecycle GHG emissions related to the production and use of biofuel from short-rotation hybrid poplar and willow. The EPA specifically requests comments on the modeling used to conduct our analysis, and the definitions of short-rotation hybrid

[254] See the memorandum, ''Example Method for Calculating Lifecycle Greenhouse Gas Emissions Associated with Renewable Fuel Production including Carbon Capture and Sequestration,'' available in the docket for this action.

[255] See 75 FR 14680 (March 26, 2010).

[256] The RFS2 final rule preamble (75 FR 14670, March 26, 2010) and Regulatory Impact Analysis (RIA) (EPA–420–R–10–006) provide further discussion of our approach. These documents are available in the docket for this action or online at *https://www.epa.gov/renewable-fuel-standard-program/renewable-fuel-standard-rfs2-final-rule-additional-resources.*

poplar and willow that we are proposing.

B. Overview of Short-Rotation Tree Systems

Short-rotation tree (SRT) systems, also known as short-rotation coppice (SRC), are stands of woody trees producing multiple stems from coppice growth, and harvested in relatively short rotations (generally less than 10 years) for bioenergy use. Common genera grown in SRT systems include *Populus* (cottonwoods, poplars, aspens), *Salix* (willows), *Pinus* (southern pines), and *Eucalyptus* (eucalypts). Most definitions of SRTs or SRCs classify these systems by maximum rotation length or coppicing abilities.[257] [258] [259] SRT systems can vary widely by planting density, species composition, and rotation length.[260] For instance, systems purposed for high frequency harvesting of biomass are often managed on shorter rotations (*e.g.,* 2–4 years), with high density planting. Others are harvested less frequently (*e.g.,* 10 years), with more spaced planting to allow each plant to grow to a larger size (without being hindered by competition for sunlight, water, and soil nutrients).

SRT systems can provide a number of environmental benefits over a tilled agricultural system. They result in greater accumulation of carbon through below-ground organic matter that goes undisturbed for longer periods of time, as well as protection against nutrient runoff and soil erosion due to larger root networks.[261] A key feature of most SRT systems is coppicing. Coppicing is a desirable characteristic of short-rotation system because it requires relatively low maintenance between harvests compared to an annual crop. Original site establishment of SRT systems requires the planting of a seedling, usually one to two years old, followed by successive harvest cycles (*e.g.,* 6 to 8 rounds of 3–4 year rotations) until the coppice reaches the end of its productive lifespan (*e.g.,* 20–30 years). Managed SRT systems exist in many parts of the world, predominantly in Europe (notably willow in Sweden and the UK, and poplar in Italy, among others).[262]

1. Short-Rotation Hybrid Poplar

The EPA has analyzed a set of taxa being grown in short-rotation systems known as the hybrid poplar. Hybrid poplars are plants created by the cross pollination of multiple members of *Populus* species within the *Salicaceae* family. Specifically, hybridization is most commonly performed between two (of six) *Populus* sections, *Aigeiros* and *Tacamahaca* (cottonwoods), with the most common parent poplars being black cottonwood (*Populus trichocarpa*) and eastern cottonwood (*Populus deltoides*).[263] Artificial hybridization is performed to take advantage of an effect called heterosis (or ''hybrid vigor''), in which the hybrid offspring exhibits enhanced traits compared to either of the parents (be it greater yield growth, disease resistance, or other biological characteristics). Hybridization of poplar species began in 1925 with initial interest in cultivation for conventional pulpwood, and in various parts of the world poplar is currently grown for pulp and other solid wood uses.[264] [265] [266] Over time, the fast-growing nature of hybrid poplar attracted research for short-rotation, smaller diameter purposes. In the U.S., USDA has participated in hybrid poplar development through the biomass crop assistance program (BCAP), with most of the focus occurring in the Pacific Northwest. Hybrid poplar is mostly being grown on demonstration scale plots; there is not currently large scale commercial production in the U.S. USDA does not formally track hybrid poplar production so there is no U.S. government estimate of national acreage or production quantity. However, there are approximately 100,000 acres of short-rotation hybrid poplar grown in the Pacific Northwest (including Canada), approximately 25–30 thousand acres grown in Minnesota, and small pockets of production in other parts of the U.S. and Canada.[267] [268] Existing production from demonstration sites goes to research associated with the production of cellulosic biofuel, bioenergy, and pulp.[269] [270]

2. Short-Rotation Willow

The EPA also analyzed short-rotation willow, also known as shrub willow, which is another short-rotation species. Shrub willow refers to a number of *Salix* species also within the family *Salicaceae* (like *Populus*). Multiple *Salix* species are being used in SRT systems. In the U.S., common varieties include *S. miyabeana, S. purpurea, S. sachalinesis,* and *S. viminalis* (and crosses between these and other species).[271] [272] In addition to use as a bioenergy feedstock, willow has gathered interest for other purposes. Willow ''living fences'' can be used as windbreaks, visual/noise screens, or to trap blowing snow along roadways, which reduces the cost of snow plowing and improves road safety. Additionally, willow is well-suited to grow in wet soils and can be used to stabilize stream banks, reducing the risk of flooding and providing a vegetated buffer to prevent pollutants and sediments from entering surface and groundwater.[273] Research of shrub willow for bioenergy and bioproducts began in the U.S. in 1986 through the State University of New York College of Environmental Science

[257] Wright L.L. et al. ''Short Rotation Woody Crops: Using Agroforestry technology for energy in the United States.'' Oak Ridge National Laboratory. Dec 1993.

[258] Short Rotation Crops for Bioenergy Systems. IEA Bioeenergy, Task 30. Technical Review No. 3. April 2009.

[259] Coppicing is the process by which new shoots and trees are regenerated from a cut stump following harvest. Hinchee et al. ''Short-rotation woody crops for bioenergy and biofuels applications.'' In Vitro Cell Dev Biol Plant. 2009 Dec; 45(6): 619–629. Published online 2009 Aug 26. doi: 10.1007/s11627–009–9235–5.

[260] Wang et al., ''GREET Model Short Rotation Woody Crops (SRWC) Parameter Development.'' Argonne National Laboratory. December 2012.

[261] Hansen. ''Soil carbon sequestration beneath hybrid poplar plantations in the North Central United States.'' Biomass and Bioenergy. Volume 5, Issue 5, 1993, pg. 431–436.

[262] Langeveld et al. ''Assessing Environmental Impacts of Short Rotation Coppice (SRC) Expansion: Model Definition and Preliminary Results.'' Bioenerg. Res. (2012) 5:621–635.

[263] ''Hybrid Poplar, an Intermediate Crop for the Intermountain West.'' USDA-Natural Resources Conservation Service, Boise, Idaho. January 2001.

[264] Stout, A. B., and E. J. Schreiner. 1933. ''Results of a project in hybridizing poplars.'' Journal of Heredity 24:2 16–229.

[265] Stout, A. B., R. H. McKee, and E. J. Schreiner. 1927. ''The breeding of forest trees for pulp wood.'' Journal of New York Botanical Gardens 28:49–63.

[266] Utilization Opportunities and Economics, Hybrid Poplar Best Management Practices. University of Minnesota, Extension. Fall 2011. *http://www.extension.umn.edu/environment/agroforestry/docs/hybrid-poplar-utilization-opportunities.pdf.*

[267] Hybrid Poplar Research Program, Washington State University. *http://puyallup.wsu.edu/poplar/.*

[268] Hybrid Poplar (Populus spp). Agroforestry. University of Minnesota Extension. *http://www.extension.umn.edu/environment/agroforestry/hybrid-poplar-populus-spp/hybrid-poplar-populus-spp.html.*

[269] ''Biomass Energy Opportunities from Hybrid Poplars in Minnesota.'' Dean Schmidt, WesMin Resource Conservation and Development. Information presented at Woody Biomass Harvesting and Utilization Workshop presentation in St. Cloud, MN on March 21, 2006. *http://www.extension.umn.edu/environment/agroforestry/biomass/schmidt.pdf.*

[270] Project Overview, Infosheet no. 1. March 2014. Advanced Hardwood Biofuels Northwest. *http://hardwoodbiofuels.org/wp-content/uploads/2014/03/ProjectOverviewFinal.pdf.*

[271] Zalesny, Jr., R.S., et al. ''Woody Biomass from Short Rotation Energy Crops.'' Chapter 2, American Chemical Society 2011.

[272] Whereas all of the *Populus* varieties we are considering are hybrid crosses, only some of the qualifying willow cultivars are crosses, while others are from single species. When we reference ''willow'' we mean both a single species and crosses between multiple species.

[273] ''Introduction to Shrub Willow Fact Sheet.'' State University of New York College of Environmental Science and Forestry. *http://www.esf.edu/willow/documents/1IntroToShrubWillow.pdf.*

and Forestry (SUNY–ESF). Through the BCAP, USDA has partnered with SUNY–ESF to develop willow in upstate New York where there are approximately 1,200 acres of willow in production.[274] There it is harvested in 3–4 year cycles. Since the initial trials in upstate New York in the mid-1980s, yield trials have been conducted, or are underway, in 14 states [275] and six provinces in Canada.[276] USDA does not formally track willow production so there is no U.S. government estimate of national acreage or production quantity.

Willow also has a history as a bioenergy feedstock in numerous countries in Europe, including Sweden, the UK, and Poland, where it is pelletized and co-fired with coal in electricity generation to help meet renewable energy goals. By one estimate, there are over 40,000 acres of commercial plantings in Europe.[277]

C. Analysis of Lifecycle GHG Emissions

The EPA's analysis shows that fuel produced from short-rotation hybrid poplar and willow using a variety of processing technologies meets the 60 percent GHG emissions reduction threshold necessary to qualify as cellulosic biofuel. This section explains our analysis of the lifecycle GHG emissions associated with fuel produced from these feedstocks.

1. Methodology and Scenarios Evaluated

The EPA's analysis of the domestic impacts of short-rotation hybrid poplar and willow biofuel pathways use the same model of U.S. agricultural and forestry sectors that was used for the RFS2 final rule: The Forestry and Agricultural Sector Optimization Model (FASOM) developed by Texas A&M University.[278] The model requires a number of inputs and assumptions that are specific to the pathway being analyzed, including projected yields of feedstock per acre planted, projected fertilizer use, and energy use in feedstock processing and fuel production.[279]

For international impacts, we applied results from the switchgrass analysis performed for the RFS2 final rule. The switchgrass analysis used the Food and Agricultural Policy and Research Institute international model as maintained by the Center for Agricultural and Rural Development at Iowa State University (the FAPRI–CARD model). This approach is similar to the methodology we used to evaluate and approve other dedicated bioenergy feedstocks, such as energy cane, giant reed, and napier grass. As we discussed in the RFS2 final rule, some feedstock sources can be determined to be similar enough to those modeled that the modeled results could reasonably be extended to these similar feedstock types. Switchgrass, short-rotation hybrid poplar, and short-rotation willow are all dedicated bioenergy feedstocks, and are expected to grow on the same types of land and cause the same types of crop displacement. As the EPA assumed for the analysis of energy cane, giant reed, and napier grass, we do not believe that these bioenergy feedstocks will cause large land use change impacts, as they do not generate the economic returns of row crops on productive lands, and are therefore being targeted for development on less productive lands. For analysis of short-rotation hybrid poplar and willow, we scaled the switchgrass international emissions for yield differences in switchgrass, short-rotation hybrid poplar, and short-rotation willow, and applied these adjusted emissions to short-rotation hybrid poplar and willow.[280]

To assess the impacts of an increase in renewable fuel volume from a ''business-as-usual'' scenario likely to have occurred without the short-rotation hybrid poplar and willow-based biofuels, we compared impacts in a control case to the impacts in two new cases: ''short-rotation hybrid poplar biofuel'' and ''short-rotation willow biofuel.'' [281] The control case includes a projection of renewable fuel volumes from feedstocks such as corn, soybeans, and switchgrass, among others. The control case used for this analysis had zero gallons of short-rotation hybrid poplar or willow biofuel production. For the ''short-rotation hybrid poplar biofuel'' and ''short-rotation willow biofuel'' cases, our modeling assumed that 400 million gallons of short-rotation hybrid poplar ethanol or short-rotation willow ethanol are produced in 2022.

The scenario volume of 400 million gallons of biofuel per year used in the model is the target production level of hybrid poplar based biofuel as of 2012 by Advanced Hardwood Biofuels Northwest (AHB), a USDA-funded consortium of universities and industry partners. We believe this is a reasonable volume to model for a number of reasons. While there is little production of short-rotation hybrid poplar or willow-based biofuel currently, the biotechnology company Zeachem Inc., with a loan guarantee from USDA, is planning a 25 million gallon/year cellulosic biorefinery in Boardman, Oregon, sourcing hybrid poplar as the primary feedstock. Zeachem Inc. currently operates a 250,000 gallon/year demonstration plant also in Boardman, Oregon. Although these currently identified projects are much lower than the 400 million gallons modeled, there is also data supporting larger volumes. For example, the Department of Energy (DOE), in the 2011 ''U.S. Billion Ton Study Update'' assessed the potential supplies of bioenergy feedstocks at various economic conditions. At baseline conditions, they concluded that in 2022, 67 million dry tons of ''woody crops'' (roughly 6 billion gallons of biofuel) could be supplied at $50/dry ton.[282] [283] When weighing the potential for large-scale feedstock production with the more modest volume of projects currently identified, we think

[274] ''Willow Bioenergy in New York State.'' State University of New York College of Environmental Science and Forestry. *http://www.esf.edu/willow/documents/2NewYorkWillow.pdf.*

[275] Delaware, Indiana, Illinois, Maryland, Michigan, Minnesota, Missouri, New Jersey, New York, Pennsylvania, South Carolina, Virginia, Vermont, and Wisconsin.

[276] U.S. DOE. 2011. ''U.S. Billion-Ton Update: Biomass Supply for a Bioenergy and Bioproducts Industry.'' R.D. Perlack and B.J. Stokes (Leads), ORNL/TM–2011/224. Oak Ridge National Laboratory, Oak Ridge, TN. 227p. (pg. 109).

[277] ''Developing Willow Biomass Crops as a Source of Home Grown Energy.'' T.A. Volk, State University of New York College of Environmental Science and Forestry. Renewable Energy Forum, Auburn, NY, March 20, 2010. *http://www.esf.edu/willow/documents/VolkWillowOverview111110.pdf.*

[278] For more information on the FASOM model, refer to the RFS2 final rule preamble (75 FR 14670, March 26, 2010) or the RFS2 final rule RIA. These documents are available in the docket for this action or online at *https://www.epa.gov/renewable-fuel-standard-program/renewable-fuel-standard-rfs2-final-rule-additional-resources.*

[279] Detailed information on model inputs, assumptions, calculations, and the results of this and other components of our assessment of the lifecycle GHG emissions performance for short-rotation hybrid poplar and willow pathways can be found in the memorandum, ''Short-Rotation Trees Technical Memorandum,'' available in the docket for this action.

[280] Additional details on the application of switchgrass results to this analysis are available in the memorandum, ''Short-Rotation Trees Technical Memorandum,'' available in the docket for this action.

[281] This approach is similar to the approach used in the RFS2 final rule. For more information, refer to the RFS2 final rule preamble (75 FR 14670, March 26, 2010) or the RFS2 final rule RIA (EPA–420–R–10–006). These documents are available in the docket or online at *https://www.epa.gov/renewable-fuel-standard-program/renewable-fuel-standard-rfs2-final-rule-additional-resources.*

[282] In addition to poplar and willow, ''woody crops'' also included eucalyptus and southern pines in this study, so this full amount would not be expected to come from short-rotation hybrid poplar and/or willow. However, these volumes are indicative of supply potential in a future with favorable conditions for dedicated bioenergy feedstocks. U.S. DOE. 2011. ''U.S. Billion-Ton Update: Biomass Supply for a Bioenergy and Bioproducts Industry''. R.D. Perlack and B.J. Stokes (Leads), ORNL/TM–2011/224. Oak Ridge National Laboratory, Oak Ridge, TN. 227p. (pg. 130).

[283] These biofuel volumes assume a conversion yield of 92.3 gallons of ethanol per dry ton.

400 million gallon/year is a reasonable volume for our modeling purposes.

Understanding the uncertainty in the ability for hybrid poplar and willow biofuel to penetrate and grow in the market, we also analyzed smaller volume scenarios as a sensitivity analysis that is included in the memo to the docket. The purpose of doing so was to test the GHG emissions impact of a lesser demand for these fuels on agricultural markets and land use. These lower volume scenarios produced agricultural market and land use impacts on a per-gallon basis that were similar to the respective 400 million gallon/year scenarios, and LCA GHG results were also consistent with the larger volume scenarios.[284]

Similar to our analysis of renewable fuel feedstocks in the RFS2 final rule, the EPA assessed what the lifecycle GHG emissions impacts would be from the use of additional volumes of short-rotation hybrid poplar or willow for biofuel production. The information provided below discusses the outputs of the analysis using the FASOM model to determine changes in the domestic agricultural and livestock markets. We then discuss the results of our analysis of international impacts from the switchgrass analysis in the RFS2 final rule. Finally, we discuss other GHG emissions associated with the pathways, and conclude with a summary of all GHG emissions associated with the production of biofuel from short-rotation hybrid poplar or willow feedstock.

2. Domestic Impacts

Using FASOM, we estimated the domestic impacts of producing 400 million gallons of biofuel from short-rotation hybrid poplar or willow. FASOM estimates that 6.3 million tons of additional short-rotation hybrid poplar production will be needed to produce 400 million gallons of ethanol in 2022, and that these tons will come exclusively from around 950,000 acres in the Pacific Northwest East region of FASOM. The Pacific Northwest East region, which covers Oregon and Washington, east of the Cascade mountain range, has the highest yield in the model. The Pacific Northwest East region is also the location of actual current production. The increased short-rotation hybrid poplar production in the Pacific Northwest East causes cropland in this region to be shifted away from wheat, barley, and hay. Although production of these crops increases in other regions, overall the national production of these crops decreases (see Table VI.C.2–1).

The total active cropland in the U.S. increases by 260,000 acres in 2022 (see Table VI.C.2–2). These additional acres primarily come from the conversion of idle cropland (131,000 acres), pastureland (72,000 acres), and forests (57,000 acres) to active cropland.[285]

In the short-rotation willow scenario, approximately 6.5 million tons of short-rotation willow will be needed to produce 400 million gallons of ethanol in 2022. Like short-rotation hybrid poplar, short-rotation willow currently has no commercial market in FASOM, and all of the short-rotation willow for fuel comes from new production. In 2022, all short-rotation willow production is projected to be in the Northeast, and around 1.2 million acres will be required.[286] In FASOM, the Northeast has the highest short-rotation willow yield. This is also the region where short-rotation willow is currently grown for research purposes. Short-rotation willow production causes decreases in the production of hay, corn, and soybeans in the Northeast. Although production increases in other regions, overall the national production of these crops decreases (see Table VI.C.2–1).

For this high-volume willow scenario, the total active cropland in the U.S. increases by 363,000 acres (see Table VI.C.2–2). The cropland comes primarily from the conversion of forest (212,000 acres), pastureland (90,000 acres), and idle cropland (60,000 acres) to active cropland.[287]

TABLE VI.C.2–1—CHANGES IN U.S. PRODUCTION IN 2022 RELATIVE TO CONTROL CASE

[Million tons]

	Short-rotation hybrid poplar case	Short-rotation willow case
Short-Rotation Hybrid Poplar	6.28	0
Short-Rotation Willow	0	6.49
Corn	−0.01	−1.22
Wheat	−0.52	−0.12
Soybeans	−0.03	−0.23
Barley	−0.09	0.03
Hay	−0.77	−0.75

TABLE VI.C.2–2—CHANGES IN HARVESTED AREA BY CROP IN THE U.S. IN 2022 RELATIVE TO CONTROL CASE

[Thousand acres]

	Short-rotation hybrid poplar case	Short-rotation willow case
Short-Rotation Hybrid Poplar	948	0
Short-Rotation Willow	0	1,187
Corn	26	−299

[284] We analyzed a 200 million gallon/year hybrid poplar scenario and a 200 million gallon/year willow scenario. These results can be found in the memorandum, ''Short-Rotation Trees Technical Memorandum,'' available in the docket for this action.

[285] Additional details about national land cover changes are available in the docket for this action.

[286] The Northeast region in FASOM covers the New England states, New York, Pennsylvania, New Jersey, Delaware, Maryland, and West Virginia.

[287] According to the 2012 Census of Agriculture, there were 389.7 million acres of cropland in 2012. This means that according to FASOM, producing 400 million gallons of willow or hybrid poplar biofuel would increase total cropland in the U.S. by less than 0.1 percent in 2022 relative to 2012 levels. See ''Farms and Farmland, Numbers, Acreage, Ownership, and Use.'' September 2014. 2012 Census of Agriculture. United States Department of Agriculture. *https://www.agcensus.usda.gov/Publications/2012/Online_Resources/Highlights/Farms_and_Farmland/Highlights_Farms_and_Farmland.pdf*.

TABLE VI.C.2–2—CHANGES IN HARVESTED AREA BY CROP IN THE U.S. IN 2022 RELATIVE TO CONTROL CASE—Continued

[Thousand acres]

	Short-rotation hybrid poplar case	Short-rotation willow case
Wheat	−485	−2
Soybeans	−26	−178
Hay	−91	−320
Other	−112	−25
Total*	260	363

*Total may differ from subtotals due to rounding.

3. International Impacts

As explained above, the results of the FASOM model provide insights into the domestic impacts of producing biofuel from short-rotation hybrid poplar or willow. In this section we explain the international impacts. The FASOM model shows that in the short-rotation hybrid poplar and willow scenarios, the national production of crops such as wheat, corn, and soybeans will decrease as a result of increased land competition.[288] The decrease of production creates upwards price pressure on these crops. The primary response of these supply pressures in FASOM is the decline of U.S. exports, especially wheat in the short-rotation hybrid poplar case and corn in the short-rotation willow case. This effect creates an incentive for international producers to increase production of these crops, which likely requires some conversion of new land into agriculture and produces land use change emissions. In addition, increased international crop production can cause an increase in the amount of fertilizers and energy used internationally for crop production, which would increase GHG emissions. Finally, international changes in crop production can cause changes in livestock and rice methane emissions, which will also influence GHG emissions. Given the limited historical and market data associated with growing dedicated bioenergy feedstocks, we believe it is reasonable to assume that short-rotation hybrid poplar and willow will have similar international impacts as other dedicated energy feedstocks such as switchgrass. Since there are not well established global markets for SRT feedstocks, we don't expect a significant interaction between an increase in the production of short-rotation willow and hybrid poplar for biofuels in the U.S. and other hybrid poplar and willow production around the world. Switchgrass, short-rotation hybrid poplar, and short-rotation willow are expected to be grown on similar types of land and have similar impacts on the production of other crops. Therefore, we believe it is reasonable to apply the international emissions associated with increased biofuel production from switchgrass to our analysis of impacts associated with producing biofuels from short-rotation hybrid poplar and willow, an approach that we have taken for other bioenergy feedstocks such as miscanthus, energy cane, and napier grass.[289] International GHG emissions are discussed in section VI.C.6 of this preamble.

TABLE VI.C.3–1—CHANGES IN U.S. EXPORTS IN 2022 (THOUSAND TONS) RELATIVE TO THE CONTROL CASE

	Short-rotation hybrid poplar case	Short-rotation willow case
Corn	27	−931
Soybeans	−27	−226
Barley	−4	0
Wheat	−524	−93

4. Feedstock Transport

GHG emissions associated with distributing short-rotation hybrid poplar and willow are expected to be similar to the EPA's estimate for switchgrass because they are all dedicated bioenergy feedstocks requiring similar transport, loading, unloading, and storage regimes and have similar conversion yields as discussed in section VI.C.5 of this preamble. Our analysis therefore assumes the same GHG impact for feedstock distribution as we assumed for switchgrass.

5. Fuel Production, Distribution, and Use

Short-rotation hybrid poplar and willow are suitable for the same conversion processes as other cellulosic feedstocks, such as switchgrass and corn stover. Currently available information on short-rotation hybrid poplar and willow composition shows that their hemicellulose, cellulose, and lignin content are comparable to or higher than other feedstocks that qualify under the RFS regulations for the production of cellulosic biofuels. Conversion yield data provided by a technical assessment of cellulosic feedstocks by National Renewable Energy Laboratory (NREL) suggests that the yield will be higher for short-rotation hybrid poplar and willow than for other cellulosic feedstocks.[290] However, as a conservative estimate, we applied the same production process energy inputs and conversion yields

[288] See section VI.C.2 of this preamble.

[289] We scaled the switchgrass emissions to account for the lower yields of short-rotation hybrid poplar and willow, as described in more detail in the memorandum, ''Short-Rotation Trees Technical Memorandum,'' available in the docket for this action.

[290] Tao, L. and A. Aden. November 2008. ''Technoeconomic Modeling to Support the EPA Notice of Proposed Rulemaking.'' NREL. Docket Item No. EPA–HQ–OAR–2005–0161–0844.

that were modeled for switchgrass in the RFS2 final rule (biochemical ethanol, thermochemical ethanol, and Fischer-Tropsch (F–T) diesel [291]) to short-rotation hybrid poplar and willow.[292] The EPA also assumes that the distribution and use of biofuel made from short-rotation hybrid poplar and willow will not differ significantly from similar biofuel produced from other cellulosic sources. As was done for the switchgrass case, this analysis assumes that dedicated bioenergy feedstocks are grown in the U.S. for production purposes. If feedstocks were grown internationally for biofuel production, and the fuel was shipped to the U.S., shipping the finished fuel to the U.S. could increase transport emissions. However, based on analysis of the increased transport emissions associated with sugarcane ethanol distribution to the U.S. considered for the RFS2 final rule, this would at most add 1–2 percent to the overall lifecycle GHG impacts of the dedicated bioenergy feedstocks.

6. Results of Lifecycle GHG Analysis

As described above, we analyzed the GHG emissions associated with agriculture, land use change, fuel and feedstock transport, and tailpipe emissions for renewable fuels produced from short-rotation hybrid poplar and willow. Tables VI.C.6–1 and VI.C.6–2 break down by stage the lifecycle GHG emissions of the 2005 gasoline and diesel baselines and of short-rotation hybrid poplar and willow fuels produced in 2022.[293]

Net agricultural emissions include domestic and international impacts related to changes in crop inputs such as fertilizer, energy used in agriculture, livestock production, and other agricultural changes in the scenarios modeled. Increased demand for short-rotation hybrid poplar or short-rotation willow results in negative net agricultural emissions, meaning the emissions decrease relative to the control case. Short-rotation hybrid poplar and short-rotation willow use fewer agricultural inputs than corn, soybeans, barley, and wheat. Because land was converted from these crops to short-rotation hybrid poplar or short-rotation willow production, there was a reduction in the usage of agricultural inputs, and a corresponding reduction in the emissions from farm inputs.[294]

Domestic land use change emissions are negative for short-rotation hybrid poplar and willow. One reason for this is that most of the land used for short-rotation hybrid poplar or willow production comes from existing cropland. Using this cropland for short-rotation hybrid poplar or willow rather than annual crops like corn or wheat increases the amount of carbon stored in the soil and below-ground biomass (roots) due to the longer rotation and no-tillage characteristics of short-rotation hybrid poplar and willow. Another reason for the decrease in domestic land use change emissions in 2022 is due to more intensive management of forest acres in response to expected pressure on forest acres and forest product supply in the future.

As a result of increased demand for short-rotation willow and hybrid poplar, international land use change emissions increase. The increase in international land use change emissions for short-rotation hybrid poplar and short-rotation willow are larger than the decrease in domestic land use change emissions, leading to a net increase in land use change emissions.

The fuel production stage includes emissions from ethanol or diesel production plants, as described in section VI.C.5 of this preamble. Fuel and feedstock transport includes emissions from transporting short-rotation hybrid poplar or willow from the farm to a fuel production facility. As we assume for cellulosic pathways approved under the 2010 RFS2 final rule for the biochemical conversion process, lignin from the feedstock is burned to produce electricity, which offsets grid electricity, resulting in negative emissions. Even without this credit, short-rotation willow and hybrid poplar would meet the 60 percent GHG reduction threshold.

For short-rotation hybrid poplar, total emissions are 77–132 percent lower than the 2005 gasoline or diesel baseline. For short-rotation willow, total emissions are 69–125 percent below the gasoline or diesel baseline. These results, if finalized, would justify a determination that short-rotation hybrid poplar and willow ethanol, diesel, jet fuel, heating oil, and naphtha would meet the 60 percent reduction threshold required to qualify as cellulosic biofuel.

TABLE VI.C.6–1—LIFECYCLE GHG EMISSIONS FOR SHORT-ROTATION HYBRID POPLAR BIOFUEL

[g CO_2-eq/mmBtu]

Fuel type	Biochemical ethanol	Thermochemical ethanol	F–T diesel **	2005 Gasoline baseline	2005 Diesel baseline
Net Agriculture (w/o land use change)	−4,503	−4,714	−4,670		
Domestic Land Use Change	−2,481	−2,597	−2,573		
International Land Use Change	23,608	24,709	24,481		
Fuel Production	−53,116	559	835	19,200	17,998
Fuel and Feedstock Transport	4,565	4,778	3,981	(*)	(*)
Tailpipe Emissions	880	880	700	79,004	79,008
Total Emissions	−31,048	23,616	22,753	98,204	97,006
Lifecycle GHG Percent Reduction Compared to Petroleum Baseline	132%	76%	77%		

* Emissions included in fuel production stage.

** The F–T diesel process modeled applies to cellulosic diesel, jet fuel, heating oil, and naphtha.

[291] As explained in the RFS2 final rule (75 FR 14782), the F–T diesel process modeled applies to cellulosic diesel, jet fuel, heating oil, and naphtha. More information about F–T production technology can be found in: David, Ryan. August 2009. ''Techno-economic analysis of current technology for Fischer-Tropsch fuels production.'' NREL. Docket Item No. EPA–HQ–OAR–2005–0161–3035.

[292] Details about the energy input assumptions and GHG emissions calculations can be found in the memorandum, ''Short-Rotation Trees Technical Memorandum,'' available in the docket for this action.

[293] More details on these values are available in the memorandum, ''Short-Rotation Trees Technical Memorandum,'' available in the docket for this action.

[294] A breakdown of the emissions from domestic and international farm inputs, livestock, and rice methane can be found in the memorandum, ''Short-Rotation Trees Technical Memorandum,'' available in the docket for this action.

TABLE VI.C.6–2—LIFECYCLE GHG EMISSIONS FOR SHORT-ROTATION WILLOW BIOFUEL

[g CO_2-eq/mmBtu]

Fuel type	Biochemical ethanol	Thermochemical ethanol	F–T diesel **	2005 Gasoline baseline	2005 Diesel baseline
Net Agriculture (w/o land use change)	−4,210	−4,407	−4,366		
Domestic Land Use Change	−2,596	−2,717	−2,692		
International Land Use Change	29,556	30,935	30,649		
Fuel Production	−53,116	559	835	19,200	17,998
Fuel and Feedstock Transport	4,679	4,897	4,099	(*)	(*)
Tailpipe Emissions	880	880	700	79,004	79,008
Total Emissions	−24,807	30,148	29,225	98,204	97,006
Lifecycle GHG Percent Reduction Compared to Petroleum Baseline	125%	69%	70%		

* Emissions included in fuel production stage.
** The F–T diesel process modeled applies to cellulosic diesel, jet fuel, heating oil, and naphtha.

Although this analysis assumes short-rotation hybrid poplar and willow biofuels produced for sale and use in the U.S. will most likely come from domestically produced feedstock, we also intend for the proposed pathways to cover short-rotation hybrid poplar and willow from other countries. We do not expect biofuels from short-rotation hybrid poplar and willow feedstocks produced in other nations to have significantly different lifecycle GHG emissions than we have calculated for domestically-produced fuels. As explained above, we believe that increased transport for fuel produced internationally would only increase the total lifecycle GHG emissions by at most 1–2 percent. Moreover, other countries most likely to be exporting short-rotation hybrid poplar, short-rotation willow, or biofuels produced from these feedstocks are likely to be major producers that typically use similar cultivars and farming techniques. Therefore, GHG emissions from producing biofuels with short-rotation hybrid poplar and willow grown in other countries should be similar to the GHG emissions we estimated for U.S. short-rotation hybrid poplar and willow, though they could be slightly (and insignificantly) higher or lower.

7. Risk of Potential Invasiveness

Poplars (*i.e., Populus* species) and willows (*i.e., Salix* species) are potential bioenergy feedstocks when grown as SRTs. Potential candidates for feedstocks include species that are both native and exotic to the U.S., as well as a variety of hybrids and cultivars of these species. While we are not necessarily concerned about the invasive potential of the native species, some exotics are weedy or potentially weedy, and hybrids can sometimes have weedy or invasive characteristics that are not shared by the parent species. Because poplar and willow species and hybrids are actively being developed for bioenergy use on large landscape scales, there is uncertainty regarding the potential invasiveness of these taxa. Therefore, we are seeking comment on what regulatory requirements, if any, would be appropriate for mitigating the risk of invasiveness of these taxa of poplars and willows.

D. Proposed Regulations

1. Adding Pathways to Table 1 to 40 CFR 80.1426

As discussed previously, the EPA's analysis shows that fuel produced from short-rotation hybrid poplar and willow using a variety of processing technologies meets the 60 percent GHG emissions reduction threshold needed to qualify as a cellulosic biofuel. Therefore, we are proposing to modify rows K, L, and N of Table 1 to 40 CFR 80.1426 to add these new pathways. Producers would then be able to submit registration materials to produce renewable fuels through these pathways, subject to compliance with all applicable regulations. We invite comment on all aspects of this analysis.

2. Proposed Definitions for Short-Rotation Hybrid Poplar and Short-Rotation Willow

For purposes of the RFS program, we are proposing that short-rotation hybrid poplar means a species or cross of species in the *Populus* genus that is grown with harvest rotations of less than 10 years. The EPA is considering hybrid poplar to include the following species, as well as crosses between them: *Populus (P.) deltoides, P. trichocarpa, P. nigra,* and *P. suaveolens* subsp. *maximowiczii.* We are also proposing that short-rotation willow means a species or a cross of species in the *Salix* genus that is grown with harvest rotations of less than 10 years. Qualifying species include *Salix (S.) miyabeana, S. purpurea, S. eriocephala, S. caprea* hybrid, and *S.* x *dasyclados* as well as crosses between *S. koriyanagi* and *S. purpurea, S. viminalis* and *S. miyabeana,* and *S. purpurea* and *S. miyabeana.* The proposed pathways do not affect the existing pathways for slash or pre-commercial thinnings. We invite comment on the proposed definitions of short-rotation hybrid poplar and short-rotation willow.

3. Registration, Recordkeeping, and Reporting Requirements

To be used as feedstock for qualifying renewable fuel under the RFS program, short-rotation hybrid poplar and short-rotation willow must be grown on a tree plantation as defined in 80 CFR 1401, and producers of fuel made from such feedstock must meet all of the registration, recordkeeping, and reporting requirements specified in the regulations for producers of renewable fuel made from qualified planted trees or tree residues. These requirements are designed to implement the statutory requirement that qualifying renewable fuel be made from ''renewable biomass'' as defined in the CAA, including ''planted trees and tree residue from actively managed tree plantations on non-federal lands [. . .].'' Among other requirements, the current regulations specify that a tree plantation must have been actively managed as a tree plantation on December 19, 2007, and that producers using these feedstocks maintain records serving as evidence that this is the case. However, we believe that the central purpose of the renewable biomass requirement is to prevent the conversion of land that was not cleared and actively managed as agricultural land as of the date of EISA enactment from being converted to production of renewable fuel feedstocks. This purpose can be satisfied with respect to tree plantations providing the land in question was cleared and

actively managed for any agricultural purpose on December 19, 2007. In addition, we believe that modifying the definition of tree plantation to allow their placement on land that was actively managed for any agricultural purpose on December 19, 2007, will facilitate the production of cellulosic biofuels, which is consistent with the purpose of the statute to promote the rapid development and use of such fuels. Therefore, the EPA is proposing to revise the definition of tree plantation and the associated recordkeeping requirements so as to allow planted trees and tree residue to be sourced from lands that were actively managed as agricultural land on December 19, 2007, in addition to those that were actively managed as tree plantations on that date. This revision would be applicable for all uses of renewable biomass from tree plantations under the RFS program. We are also amending the regulatory definition of tree plantation to include the statutory requirement that they be located on non-federal lands.

The EPA is proposing new registration and recordkeeping requirements for renewable fuel producers generating cellulosic biofuel (D-code 3) or cellulosic biomass-based diesel (D-code 7) RINs for renewable fuel produced from short-rotation hybrid poplar or willow. These requirements are to ensure that feedstocks used for these pathways meet the definitions of short-rotation hybrid poplar or willow and that the feedstocks were grown on tree plantations as defined in 80.1401. At registration, producers would be required to list all species and hybrids that they intend to use as a short-rotation hybrid poplar or willow. In addition, they would need to provide a written justification of why each feedstock meets the definition of short-rotation willow or short-rotation hybrid poplar, including the specification that the harvest rotation is less than 10 years. Finally, at registration the producer would have to submit records (including contracts and affidavits from the tree plantation supplying the feedstocks) demonstrating that the short-rotation hybrid poplar or short-rotation willow feedstocks will be sourced from a tree plantation, as defined in 40 CFR 80.1401.

The EPA is proposing additional recordkeeping requirements for renewable fuel producers using short-rotation hybrid poplar and short-rotation willow. Producers would be required to keep records of the specific short-rotation hybrid poplar or willow species or hybrids used to produce renewable fuel for each batch of fuel produced, the total quantity of each feedstock used for each batch, and the total amount of fuel produced in each batch. In addition, producers would be required to keep affidavits obtained on a quarterly basis and contracts from the short-rotation hybrid poplar or short-rotation willow feedstock providers confirming that the feedstocks provided are from a tree plantation meeting the definition in 80.1401. We invite comment on the proposed new registration and recordkeeping requirements for short-rotation hybrid poplar and short-rotation willow.

In addition to these new proposed requirements, renewable fuel producers using short-rotation hybrid poplar and short-rotation willow would need to comply with all existing applicable regulatory requirements. Short-rotation hybrid poplar and willow are considered planted trees as defined in 40 CFR 80.1401. Applicable requirements include but are not limited to registration requirements at 40 CFR 80.1450(b)(1)(ii), which require producers to demonstrate that their production process has the ability to convert cellulosic components of their feedstock into fuel. Producers using short-rotation hybrid poplar and willow as feedstocks would also have to comply with all applicable reporting requirements and submit quarterly reports pursuant to 40 CFR 80.1451(d). Producers would also have to report the specific type and quantity of each short-rotation hybrid poplar or willow species or hybrids used as feedstocks to produce the renewable fuel in EMTS consistent with existing requirements for all renewable fuels.[295] Because hybrid poplar and willow are considered planted trees rather than crops, they do not fall under the aggregate compliance approach, and therefore existing recordkeeping and reporting requirements applicable to planted trees are required. These include the requirements listed at 40 CFR 80.1454(c) and 80.1454(d) specific to producers of renewable fuel made from feedstocks that are planted trees. Additionally, producers would also have to comply with any other applicable recordkeeping requirements listed at 40 CFR 80.1454. Producers would also have to ensure that their feedstock satisfies all applicable definitions in the CAA and RFS regulations, including the definitions at 40 CFR 80.1401 of planted trees, tree plantations, and renewable biomass, which, among other provisions, prohibit direct conversion of previously uncleared land for the production of planted trees.

[295] See 40 CFR 80.1452(b).

VII. Generating RINs for Renewable Electricity

A. Background

The RFS regulations currently contain pathways for the generation of cellulosic RINs when electricity, produced from biogas, is used as a transportation fuel.[296] There has been growing interest in RINs generated for renewable electricity [297] as the fleet of electric vehicles (EVs) has expanded in recent years. Based on 2011–2014 sales data, we estimate that the current EV fleet is comprised of ~120,000 battery electric vehicles and ~150,000 plug-in hybrid electric vehicles. Were this fleet to be charged exclusively using renewable electricity, there exists the potential for the generation of approximately 30 million RINs annually. The EPA expects that the potential annual generation of RINs generated for renewable electricity could increase by roughly 10 million per annum over the next few years. The EPA believes that these potential RINs represent an opportunity to incentivize the growth of the EV market in the U.S. while simultaneously advancing the goals of the CAA to reduce air pollution and GHG emissions from mobile sources and the fuels that power them. Revenue from the sale of RINs could be used to incentivize increased generation of renewable electricity, greater availability of public charging infrastructure, increased ownership of EVs, or any combination thereof. As the EPA considers the requirements for generating RINs for renewable electricity under the RFS program, we do so with the goal of adopting a structure that best achieves the greater goals of the RFS program: Increasing the production and use of low GHG fuels produced from renewable biomass.

The EPA has received a number of registration requests for approval under the existing provisions for generating RINs for renewable electricity generated from biogas.[298] These requests vary considerably in their approach, from parties interested in generating RINs for the electricity used by a fleet of EVs, several charging stations, or groups of interested EV owners, to those interested in generating RINs for the electricity used by all of the EVs produced by an EV manufacturer. Many

[296] See Pathways Q and T in Table 1 to 40 CFR 80.1426. These pathways presumes that the electricity input into EVs carries the environmental attributes borne by electricity that is generated from biogas. The mechanics of this presumption were specified in the Pathways II rule (79 FR 42128, July 18, 2014).

[297] We use the term ''renewable electricity'' in this preamble to refer to electricity produced from biogas and used as transportation fuel.

[298] See 40 CFR 80.1426(f)(10) and (11).

elements of these RIN generation structures conflict with one another. This has created an untenable environment for the approval of any single registration request by the EPA to date. Many of the registration requests submitted envision generating RINs using different types of information to verify the use of electricity as transportation fuel.

Given the diversity of the registration requests submitted for the generation of RINs for renewable electricity to date, and the necessity of avoiding the double-counting of RINs for the same quantity of electricity, the approval of any one of these proposed systems may preclude the approval of others. The regulations prohibit double-counting of RINs for the same quantity of renewable electricity. Thus, for a given quantity of renewable electricity, at most one party—whether it is the electricity producer, the utility distributing the electricity, the EV owner, the charging station, or the manufacturer—can generate the corresponding RINs. The EPA believes the question of the appropriate party to generate RINs in these circumstances deserves the opportunity for public comment. In determining the regulatory requirement for parties seeking to generate RINs for renewable electricity, our goal is to establish an open and comprehensive program that will best incentivize growth in the use of renewable electricity without sacrificing the integrity of the RIN market. We seek comment on the following discussion and potential RIN generation structures for renewable electricity in order to help resolve the many issues associated with choosing an appropriate structure and its design, as well as which of these structures would best further the goals of the RFS program. Feedback received in response to this request for comment will be essential to ensuring that an equitable, open, and comprehensive program structure is adopted and implemented.

B. Data Requirements for Generating RINs for Renewable Electricity

A key requirement of the RFS program is the type of data required to demonstrate that RINs were generated validly and identification of who is responsible for providing the necessary data for RIN generation. Vehicle charging data demonstrate the use of electricity as transportation fuel, one of the two main requirements for RIN generation (production from renewable biomass being the other). However, there are several sources of charging data that could be provided to verify the use of electricity as transportation fuel:

- Charging data from charging stations and/or fleet owners
- Charging data from electric utilities
- Charging data from vehicle manufacturers
- Information from EV owners (from separate meters, telemetric devices, or onboard diagnostic tools)

Any of these sources of data could conceivably be used as the basis for generating RINs for renewable electricity.

Although multiple types of data can be used to demonstrate the use of electricity as transportation fuel, allowing them to be used simultaneously would almost certainly result in the generation of RINs by multiple parties for the same charging event (*i.e.,* double counting). For example, if an EV owner charged their vehicle at a public charging station, it is possible that the vehicle owner, charging station owner, and vehicle manufacturer would all have record of the amount of renewable electricity used in this single charging event.[299] To protect the integrity of the RIN system, as well as to further the GHG reduction goals of the CAA, we therefore seek comment on the entity or entities that the EPA should register for the generation of RINs for renewable electricity.

In addition to determining the type of information that will be required for RIN generation for renewable electricity, the EPA proposes to determine the extent to which parties authorized to generate RINs would be allowed to use estimates or averages (rather than empirical data) for the basis of RIN generation. These estimates or averages could range from relatively simplistic (*e.g.,* assuming 80 percent of EV charging occurs at home and 20 percent occurs at public charging stations) to more complex (*e.g.,* utilizing models generated from a sample of EV behavior to estimate the average electricity use of all EVs, or a certain type thereof). Allowing the use of estimates or averages would enable the EPA to consider a wider variety of data and data providers for participation in RIN generation. Allowing greater participation through acceptance of averaging or estimation methods may better allow RINs generated for renewable electricity to be used to incentivize future growth. For example, allowing the use of estimates and assumptions could enable the EPA to:

- Allow utilities or other parties to estimate the quantity of electricity used as transportation fuel by all EVs within their customer base.
- Allow a hybrid system wherein different types of parties (*i.e.,* charging station owners, utilities, and/or vehicle manufacturers) could participate in different segments of the market (*e.g.,* public charging or home charging).

Whether it is necessary for the EPA to adopt a system that strictly requires empirical charging data, rather than a system that allows for reasonable assumptions, remains undecided. The empirical data approach would require that large quantities of data be generated, managed, and provided by the RIN generator. A program of that scope could be resource intensive for both the RIN generator and the EPA and, depending on the approach, may prevent large-scale participation, thereby undermining the potential of the RFS program to stimulate EV usage, infrastructure, and reduce GHGs.

A program that relies upon some degree of simplification, through assumptions, would reduce resource allocation for data generation and oversight. This reduced complexity may allow for a larger variety of parties to participate in the RFS program and would likely increase participation, the number of RINs generated, and encourage future growth. Allowing the use of assumptions, such as estimates or averages, would sacrifice some of the precision present in systems that rely on empirical data, but it may also help mitigate concerns over data ownership and consumer privacy infringement. For example, if the quantity of RINs that could be generated annually by an EV were determined based upon average vehicle miles traveled, rather than empirical charging data, knowing the size of the fleet for a given year is all that is required rather than vehicle-specific charging data. There are privacy and data ownership concerns that may arise with any structure that requires empirical charging data from the EV. Issues surrounding data ownership and privacy concerns are present throughout the structures described below. Some of these structures offer more established pathways to resolution (*e.g.,* auto manufacturers and vehicle purchasers through dealer networks) while others may require the creation of resolution pathways.

Another important consideration for the EPA in determining the data requirements to allow for RIN generation for renewable electricity is

[299] At the time of writing, there has been little resolution regarding whether any of the parties actually has exclusive, legal rights to the data generated by a vehicle charging event. Some vehicle manufacturers have entered into ''user'' agreements with the vehicle owners that grants them permission to use the vehicle data, but these agreements do not appear to grant either party exclusive use rights.

whether or not to allow third parties to generate RINs using data as discussed in the various structures below. These third parties could serve an important role within these structures as aggregators of the required data and agents or intermediaries for RIN generation. In some structures (''Vehicle Owner'') it is difficult to conceive how the program could effectively work without third parties to manage data and generate RINs, whereas in other structures (''Electric Utility'' or ''Vehicle Manufacturer'') the potential RIN-generating parties may be large enough to avoid the need for a third party's involvement. While allowing third parties to generate RINs could potentially increase participation in the RFS program, particularly under some of the structures discussed below, the EPA is concerned that it could also present an opportunity for the generation of fraudulent RINs by allowing companies with minimal capital investment to participate in a lucrative new market only temporarily, making them hard to track and hold responsible. Additionally, whatever portion of the RIN value is extracted by the third party for their services cannot be used to incentivize the use of renewable electricity as transportation fuel.

C. Potential Program Structures

Allowing the generation of RINs for renewable electricity under the RFS program provides a potentially significant opportunity to incentivize investment in EV technologies and infrastructure, as well as the generation of electricity from biogas. However, the unique characteristics of the generation and tracking of renewable electricity from biogas present implementation challenges. The EPA is aware that how these challenges are dealt with and resolved will have significant consequences for who can generate RINs for renewable electricity, how the program is implemented and monitored, the level of program participation, and the degree to which RINs will be used to incentivize growth in the number of EVs, the charging infrastructure, and the generation of electricity from biogas for use as transportation fuel.

In light of these concerns, the EPA is seeking comment on the type of structure and accompanying data to be employed in allowing parties to generate RINs for renewable electricity. The following sections discuss several potential structures considered by the EPA and informed by preliminary discussions with several stakeholders. Each of these structures addresses the two primary RFS requirements for the generation of RINs for renewable electricity: (a) That renewable electricity has been generated from approved renewable biomass (biogas); and (b) That the renewable electricity is used as transportation fuel. Some of the structures discussed below are better positioned to verify the first requirement (the generation of electricity from biogas), while others are better positioned to verify the latter requirement (that electricity is used as transportation fuel). All of these structures are being considered on an individual basis, but could also be considered in the context of a hybrid approach that would combine multiple structures and/or reserve percentages of the RINs from renewable electricity for specific structures (*e.g.,* vehicle owner and vehicle manufacturers).

Any of the structures (or hybrids thereof) would impose significant, additional implementation challenges. The current RFS program would need to be adjusted to accommodate new registered parties (*e.g.,* vehicle manufacturers) and the information that those parties would need to submit during registration or during periodic reporting. EMTS may need to be modified to accommodate data submissions from new sources (*e.g.,* vehicle telematics) to more appropriately generate and track RINs generated from renewable electricity. Additionally, the complexity of a new or modified renewable electricity regulatory structure could make assuring the validity of RINs more challenging for all parties and could increase the potential for fraud. Since the complexity of generating RINs from any of these discussed structures is significantly different from traditional renewable fuels, both submission and review of registrations and reports will likely be unique. These issues, and other issues related to the implementation of a new regulatory structure, would need to be addressed.

The EPA believes that the best-case scenario would be the adoption of a structure for generating RINs for renewable electricity that would simultaneously provide greater incentive for EV use and ownership (thereby reducing air pollution and GHG emissions from vehicles), increase the amount of renewable electricity produced, and minimize challenges related to program oversight. As of 2014, however, roughly 11,000 GWh of electricity were generated from biogas, while slightly less than 700 GWh from all sources were used as transportation fuel. This means that in the near term, the number of RINs that are able to be generated from renewable electricity will likely be limited by the size of the EV fleet. Structures that do not incentivize increased ownership of EVs are therefore likely to have limited impact on the quantity of renewable electricity produced in the near term. Any program that does not induce additional electricity generation from biogas is not expected to provide additional GHG reductions beyond those provided by the efficiency of the additional EVs added to the fleet. Finally, in order to fully understand the implication of our decision on the structure for the generation of RINs for renewable electricity, we believe we should take into account the existing and significant incentives currently in place for the production of EVs and the generation of electricity from biogas.

We understand that many of the options under consideration differ from the typical approach under the RFS of placing authority and responsibility for RIN generation on the renewable fuel producer. We believe that a unique approach with respect to renewable electricity could be justifiable if it provides greater incentives for use of renewable electricity in the transportation sector and simplifies program implementation, but we seek comment on this issue.

1. Vehicle Owner Structure

One possible program structure would be to allow vehicle owners to use the data on the quantity of electricity used to charge their EVs, as measured by separate meters or telemetric devices, to generate RINs. Under this system, the data available to the RIN generator clearly demonstrate the use of electricity as transportation fuel. Allowing EV owners to generate RINs for renewable electricity could provide a direct financial incentive to owners and potential owners of EVs; however, such a system would have several major challenges that the EPA believes would prevent this structure from achieving the desired impact.

One major issue for EV owners is to measure and keep records of the amount of electricity used to charge their EVs. Barriers currently exist for vehicle owners to access and log their vehicle charging activity. Vehicle owners may opt for a second electricity meter to be installed by their utility company, which would then provide charging activity information through a dedicated billing account. The validity of charging data captured by dedicated EV charging meters would be verifiable and documented. Alternatively, vehicle owners may opt to purchase a current measurement device capable of measuring and logging charging activity.

The extent of verification challenges related to charging data captured through an independent current management device is unclear is unclear and we request comment on this issue. Either of these options would necessitate an initial financial investment, which could reduce program participation.

Even if EV owners were able to log their vehicle charging activity through one of these options, there would still be a challenge for program administration because the EPA would need to collect and verify the accounting accuracy of the charging data compared to number of RINs generated for each individual EV owner (*e.g.,* potential of ~270,000 EV owners and hundreds of charging events over the course of one year). The EPA would also need to invest in IT system upgrades or modifications to store and process the significant number of additional registrations and large volume of data. Currently, the RFS program has approximately 1,200 registrants. The addition of potentially hundreds of thousands of additional registered parties is not something currently supported by the registration system and would require a significant amount of time and resources to implement. Other program administration challenges include educating EV owners on the registration, reporting, recordkeeping, and other requirements for RIN generation under the RFS program. Since EV owners are less likely to be familiar with the requirements of the RFS program, this would likely result in a higher chance of noncompliance or violations and pose further challenges for EPA enforcement. Conversely, the compliance challenge imposed upon EV owners may be too high, and not worth the incentive of the RIN value. This could result in less participation by EV owners in the RFS program, which would be counter to the program goals. We request comment on the extent to which these program administration challenges could be minimized or overcome.

A second major issue would be the need to verify that the vehicle charging was completed using electricity generated from renewable biomass. Individual vehicle owners would likely be unable to enter into direct contracts with independent power producers or investor-owned utilities in order to demonstrate the renewable content requirements for RIN generation. Broad EV owner participation would therefore likely necessitate the creation and maintenance of a novel contract mechanism by the EPA or the involvement of a third-party aggregator in order to fulfill the requirements for RIN generation. A substantial degree of simplification for assuring renewable content, as well as eliminating charging data measurement and reporting by vehicle owners, could be achieved through the use of assumptions. The complexity of administering the vehicle owner structure could be greatly reduced by modeling usage behavior and then allowing a third party to aggregate vehicle owners and contract to meet renewable content requirements. The third party could then distribute RIN value to vehicle owners, less administrative costs, after the sale of RINs to obligated parties. Some mechanism for aggregation would be required, as another major issue is the sale of small numbers of RINs. Under the RFS program, obligated parties purchase RINs in blocks of millions and are not set up to purchase small numbers from individual parties. Therefore, aggregation would almost certainly be a necessity for the vehicle owner structure or any other structure predicated upon the generation of small numbers of RINs by a single party.

It is conceivable that owners of large EV fleets may be willing to meet the administrative and recordkeeping challenges posed by RIN generation under a non-assumption based version of the vehicle owner structure. However, because the number of EVs in fleets is small relative to the total number of EVs in the market, allowing for this structure alone would not maximize the number of RINs generated. Under a strictly empirical data version of the vehicle owner structure, even EV owners willing and able to create and maintain the necessary records would likely be dependent on a third-party aggregator to generate and sell RINs on their behalf, as the registration requirements and realities of the RIN market [300] would provide practical barriers to individual EV owners participating directly. Therefore, without some allowance for modeling or assumptions, the vehicle owner structure would be unlikely to achieve the desired impact of promoting increased generation of renewable electricity and increased EV ownership.

2. Public Charging Station Structure

Another potential structure could allow the owners of vehicle charging stations to generate RINs based on the electricity used by their charging stations. Charging data from public stations could be verified by meter billing statements that would be readily available to participating stations. Allowing charging station owners to generate RINs could also incentivize the building of additional public charging infrastructure, which could also impact the willingness of consumers to purchase and use EVs. If this structure were adopted, it is probable that the EPA could rely on verifiable empirical charging data (rather than estimates or averages) for the amount of renewable electricity used. However, such charging stations would still have to contract with upstream parties to verify that the renewable electricity used as transportation fuel for which RINs were generated was consistent with the quantity of renewable electricity generated from qualifying renewable biomass supplied to the grid from which the charging stations withdrew their electricity.

The program administration challenges for the EPA under this structure would be to verify and rectify contracts among all of the parties upstream of the charging station, particularly when there are multiple parties involved. For example, it is particularly challenging for the EPA to ensure that RINs are generated only for the quantity of electricity that is actually produced at a renewable electricity generation facility if the facility has multiple contracts with multiple charging stations for a portion of their electricity. The charging station would not know if they were contracted for a quantity of electricity that was above the capacity of the renewable electricity generation facility, and therefore the burden would fall on the EPA, or others, to conduct this verification. We seek comment on how to overcome this implementation challenge without imposing overly burdensome restrictions on how parties set up contracts and conduct business in this competitive market.

Additionally, a majority of EV charging is currently performed at work or home. Therefore, adopting this structure alone would limit the ability to achieve the desired goals of the RFS program. Even if all public charging station owners were able to participate in the RFS program, this structure would not allow for the generation of RINs for renewable electricity when EVs are not charged at public charging stations. This would significantly limit the number of RINs that could be generated for renewable electricity, thereby reducing the effectiveness of this structure to be used to incentivize ongoing EV growth. It is possible that this structure could be used in

[300] Obligated parties purchase RINs in quantities of millions of RINs, far more than any individual EV owner could generate.

conjunction with another structure—one in which the public charging structure is used to account for the public charging of EVs and another structure is used to account for the private charging of EVs. Such a hybrid system could enable the value of the RINs generated for renewable electricity sold at charging stations to incentivize increased public charging infrastructure while capturing a larger proportion of EV charging events. It may also be possible to register public charging stations or fleet owners under the current regulations while the structure adopted to allow for RINs to be generated for home charging remains undecided. We request comment on this approach.

Another challenge of this structure is that many of the public charging stations are owned by municipalities or other entities that may find it difficult, due to human resource or other constraints, to make their charging data available and participate in the RFS program. These challenges, though unique to charging stations, are not materially different than the challenges that were outlined in the vehicle owner structure for smaller entities generating RINs and participating in the RFS program. Whether adopted alone, or in concert with another structure to capture home charging, the difficulties associate with recordkeeping, reporting, and the likely need to aggregate small RIN generators so that they may participate in the RIN market are present and will need solutions prior to the public charging structure being ready for implementation.

3. Electric Utility Structure

While the other structures discussed here allow one to more easily quantify and verify the amount of electricity used as transportation fuel, they are far removed from the point where one can verify that the feedstock used to generate the renewable electricity was actually qualifying renewable biomass (*i.e.,* biogas from landfills or other qualified biomass sources). In contrast, an electric utility structure may be more effective at ensuring that the electricity was derived from a qualified source of biogas, but less effective at quantifying how much was actually used as transportation fuel. Utilities would likely have no direct knowledge of the amount of such electricity that was actually used as transportation fuel (except in circumstances where a dedicated EV charging meter had been installed) and would need to contract with downstream parties to obtain this information. Program administration challenges under the electric utility structure would include verifying and rectifying contracts among all the parties upstream and downstream of the transmission of electricity to the vehicle charger. Due to the restructuring of many utilities in the U.S., multiple parties may have to be regularly contractually connected in order for the electric utility to be the RIN generator. An additional administrative challenge would be verifying that RINs are only generated for the quantity of electricity actually produced at a renewable electricity generation facility if the facility has contracts with multiple utilities or charging stations for a portion of their electricity. We seek comment on how to overcome this implementation challenge without imposing overly burdensome restrictions on how parties set up contracts and conduct business in this competitive market.

There are several additional reasons beyond the physical connection to the qualified biomass being converted to electricity as to why an electric utility structure may be desirable. Depending on the design of the program, value from RINs generated by utilities could incentivize new forms of biomass to electricity generation or drive the increased use of biogas to generate renewable electricity, providing GHG benefits. It could also provide a source of revenue for utilities to help offset the cost of upgrading electricity distribution infrastructure, which would likely be necessary if EVs are adopted to a significant degree. Finally, as the parties that sell electricity to the end users, utilities would conceptually be best positioned to provide renewable electricity to EV owners at discounted rates.

A version of this form of structure has been adopted by the State of California in their Low Carbon Fuel Standard Program (LCFS). Under the LCFS, electric utilities generate credits based upon the number of EVs in their service territories. The amount of electricity used by each vehicle is estimated based on data from a limited number of EV owners with separate meters to directly measure the amount of electricity used to charge their vehicles. The LCFS program also allows public charging stations and fleet owners to generate credits based on charging data. The system addresses the potential for generating multiple credits for the same charging event by allowing utilities to generate credits based on estimates of the electricity used only for the home charging of EVs, while allowing public charging stations and fleet owners to generate credits based on their own charging data.[301] An important provision of the LCFS is that the utilities are required to use the LCFS credit proceeds for the direct benefit of EV owners, a provision that is not currently a part of the EPA's RFS program. While some utilities may pass revenue from RIN generation along to customers if a utility structure was adopted, the generally non-competitive nature of utilities is likely to limit the degree to which customers directly benefit from any RIN revenue.

Unlike the RFS program, the LCFS program has no requirement that the electricity used to generate the LCFS credits come from any specific source. Their program relies on a grid average carbon intensity to determine the amount of LCFS credits that are to be awarded for each charging event. This is fundamentally different from the requirements under the RFS program, where credits may only be generated for electricity generated from qualifying renewable biomass sources.

The use of grid average carbon intensity also obscures another important issue which will need to be resolved by any national structure for RINs generated for renewable electricity: Most facilities generating electricity from biogas are independent power producers (IPPs) not owned by electric utility companies. In 1978, the Public Utility Regulatory Policy Act (PURPA) was passed, granting qualifying facilities the right to be able to generate and sell electricity to utility companies at the utility's avoided cost.[302] The allowance of IPPs was expected to reduce electricity costs for consumers by allowing cheaper generation sources to participate in the market. Perhaps unintentionally, PURPA set the stage for the erosion of the regulatory consensus surrounding the vertically integrated utility model in much of the U.S. Today, many once vertically integrated utility companies have divested or separated their transmission, distribution, and generation services. In many parts of the country, the notion of ''utility'' is tantamount to the entity responsible for providing electric distribution services. The implication of this for any program structure for generating RINs for renewable electricity is that there is an added layer of complication because the utility that is delivering the electricity in such areas is rarely the owner/operator of the biogas electricity generation facility. For example, in 2014, roughly 11,000 GWh of electricity

[301] The LCFS program does not involve EV manufacturers as the source of charging data or as parties eligible to generate LCFS credits.

[302] See PURPA § 210.

were generated from biogas, less than 1,000 GWh of which were generated by traditional electric utilities.

This disaggregation introduces a potential challenge to the electric utility structure. Any utility-based structure would likely need to determine whether to allow utilities to contract with IPPs currently generating electricity from biogas or require that the utilities directly generate electricity from biogas in order to generate RINs for renewable electricity. Allowing utilities to contract with IPPs would likely result in the greatest participation in the RFS program, but may limit the procurement of new biogas generation in the near term (until the amount of electricity used as transportation fuel nears the amount of electricity presently generated from biogas). Alternatively, requiring that utilities generate the RINs for biogas generation capacity they either already own or newly procure could provide an incentive for increasing the amount of electricity generated from biogas, but would likely reduce utilities' participation in the RFS program.[303] Regardless of whether program participation is affected by IPP contracting, there is a tradeoff between these two alternative programs which would have ramifications for how the RIN value might be used.[304] If contracting with IPPs was allowed, more of the RIN value could be reserved for incentivizing EVs but there would be little change in electricity generation from biogas as a result of RIN generation (additional GHG reductions unlikely). If contracting with IPPs was not allowed, more electricity generation from biogas may be built (additional GHG reduction possible), but a much smaller fraction of the RIN value would likely remain to incentivize EVs.

In summary, the utility centric structure has some advantages, such as most directly providing the linkage to the renewable nature of the RINs generated, and could provide funds for the upgrading of electricity distribution infrastructure. In addition, the utility structure could be used in conjunction with the public charging structure used to separately capture private and public charging of EVs. There remain several challenges to the adoption of the utility centric structure however. The disaggregated nature of electricity generation from biogas would provide program administration challenges. A decision about whether or not to allow utilities to contract with IPPs to fulfill the requirement that the renewable electricity was generated from biogas would have to be made. Finally, questions remain as to the degree to which utilities, many of which are publicly regulated entities, would be legally able to participate in the RFS program as RIN generators, or whether they would be dependent on third parties to generate RINs on their behalf. We request comment from such entities regarding potential legal issues that may limit or prevent their participation.

4. Vehicle Manufacturer Structure

An additional RIN generation structure option would be a program that would use charging data collected by the vehicle manufacturer as the basis for RIN generation. This structure, like the vehicle owner and public charging station structures, is focused on quantifying the amount of electricity used as transportation fuel and less well-suited to ensuring that the electricity is generated from qualifying renewable biomass pursuant to an approved pathway (*e.g.,* biogas from an appropriate source). Currently, however, the principle constraint in the biogas to electricity to transportation fuel pathway is the use of electricity as transportation fuel, precisely what would be reflected in the EV's state of charge. Therefore, the state of charge data which could be provided by vehicle manufacturers (or their designated intermediary) may constitute a logical source of data for RIN generation. Furthermore, many vehicle manufacturers are already collecting vehicle charging data, increasing the availability of EV charging data for potential inclusion in the RFS program.

The vehicle manufacturer structure, due to the ability of OEMs to independently generate charging data, could be adopted unilaterally or this structure could be used in conjunction with another structure (*e.g.,* the charging station model) to incentivize infrastructure. Use of a vehicle manufacturer structure alone could potentially reduce the variety of data being submitted and help with the process of data verification for RIN generation. Additionally, EV manufacturers are positioned to pass on the revenue from the sale of RINs to the customer directly by discounting the purchase price of EVs or through other rebate mechanisms. This would allow the RFS program to be used to address an important factor currently limiting the amount of renewable electricity used as transportation fuel: The number of EVs in the U.S. There may be concerns that setting up the program structure in this manner would result in the automotive manufacturers collecting a windfall profit, rather than reducing the sale price of the EVs they sell. However, market forces may ultimately transfer a substantial portion of the RIN revenue to the EV owners. Automotive manufacturers have enticed costumers to purchase their products over their competitors for decades through the use of incentives. Automotive manufacturers, which have existing requirements motivating them to sell EVs, may use the RIN revenue to further incentivize vehicle buyers to purchase their product over a competitors.

From a program administration perspective, the parties that would be able to generate RINs for renewable electricity in a vehicle manufacturer structure would be a small pool of relatively homogenous applicants. It has been suggested that vehicle manufacturer telematics data could be used, in a raw or processed form, as the basis for RIN generation. However, EMTS is not currently configured to accept, process, or track the quantity and format of information that may be provided from vehicle telematics. Although these data could perhaps provide reliable information for RIN generation, the parsing of the substantial amount of information down to the vehicle level would be difficult to review for RIN verification. Significant modifications to EMTS and the registration system would still be needed to allow for the appropriate generation and tracking of RINs using data from EV manufacturers at this time.

Another aspect of the vehicle manufacturer centric structure is that it could also be administered to allow for the use of assumptions or models rather

[303] Substituting the IPPs as the RIN generators would face other challenges. Unlike utilities, IPPs do not have a customer base from which to aggregate the total electricity used as transportation fuel. Secondly, as of 2013, the average size of an IPP biogas project was 3.2 Megawatts. This is diminutive relative to utility-scale projects and it is doubtful that many of these producers would have the resources to be able to participate in the RFS program independently. Third-party aggregators would likely be required to manage the RINs generated by IPPs. Also, if IPPs were generating the RINs, the role (especially financially) of the utility would be greatly diminished and the administrative costs of participating in RFS may not be justifiable. This could present an obstacle if neither the utility nor the renewable electricity producers have sufficient capacity or incentive to participate in the RFS program.

[304] It is unclear that providing the RIN value to IPPs or utilities would result in an increase in electricity generation from biogas. Under PURPA, biogas facilities are guaranteed the utility's avoided cost of generation. Additionally, many state and federal production tax credits, investment tax credits, and compliance market credits (RECs, etc.) are already accrued by these facilities; contributing to the current large supply of electricity generation from biogas in relation to the EV market demand. Nevertheless, despite the preexisting level of subsidization, many potential biogas generating projects remain undeveloped. Additional information would be helpful to understand the degree to which the value of the RIN would result in additional generation of biogas for electricity.

than empirical charging data for the basis of RIN generation. Under this approach, the burden of collecting and verifying data could be greatly reduced. For example, EV electricity consumption models could range from something as simple as average U.S. vehicle miles travelled to usage models based on samples taken from the local EV population. The number of vehicles that each manufacturer has in the fleet could be determined based on vehicle registration data or estimated based on sales data and vehicle scrappage rates. Using these types of averages or models is one way that could also address consumer privacy concerns associated with EV manufacturers using charging data from individual EVs as the basis for RIN generation.

Like the utility centric structure, the vehicle manufacturer centric structure does not preclude a hybrid option where public or private charging stations could also be RIN generators. In order to avoid the double-counting of RINs, many different approaches could be adopted. A simplistic hybrid approach would be to adopt a market segmentation similar to that employed by California in the LCFS. Under this structure a certain percentage of the market, based on the percentage of EV charging that is expected to take place at public charging stations, is reserved for public charging stations. The number of RINs that vehicle manufacturers would be able to generate would be reduced by a corresponding percentage which could vary depending on the extent to which vehicles produced by a particular manufacturer are designed to use public charging stations. The intent of this reduction would be for vehicle manufacturers to capture only the charging of EVs that happens at the vehicle owner's homes. This approach is coarse in the sense that discounting the total RINs which were measured (or modeled) by the vehicle manufacturers by a percentage and then allowing charging stations to generate RINs based upon their aggregated charging data could result in more or less RINs being awarded than should have been depending upon the actual home to public charging split. However, this approach would simplify implementation and allow a hybrid system to incentivize both EVs and charging infrastructure.

In summary, the vehicle manufacturer centric structure has several potential advantages (potential for simplicity of implementation and providing financial incentives to increase the adoption rate of EVs), as well as some issues which would need to be resolved. Vehicle manufacturers have a privileged position in terms of access to charging data, and would thereby have the least amount of need to create complex registration requests. Vehicle manufacturers also have an opportunity to resolve potentially complex data ownership issues surrounding EV charging data. There is also flexibility in this program structure for the use of assumptions and models that could serve to reduce administrative and applicant resource expenditure, which could lead to greater program participation. Vehicle manufacturers, however, would have to rely on contractual mechanisms to verify that the electricity used as the basis for RIN generation was generated from qualifying biogas and that the electricity was introduced into a grid servicing their customers. A single vehicle manufacturer would likely need to rely on a sizable number of contracts with IPPs, given the small scale of many IPPs that generate electricity from biogas and the necessity for the IPPs to be able to supply electricity onto the electrical grid from which the manufacturer's EVs draw electricity.

D. Equivalence Value and Other Issues Related to Generating RINs for Renewable Electricity

The EPA has received input from various parties regarding the equivalence value assigned to RINs generated for renewable electricity used as transportation fuel. A number of these parties have voiced concern that the unique nature of electric vehicles warrants an equivalence value calculated using a different set of parameters than those used to calculate the equivalence value of other renewable fuels under the RFS program. The EPA acknowledges that there are undoubtedly differences between vehicles that use internal combustion engines (ICEs) for propulsion and those that utilize electric motors. Whether the equivalence value for RINs generated for renewable electricity should be evaluated differently in light of these differences is a considerably more complex issue, and as such, the EPA would like to open up the issue of the renewable electricity RIN equivalence value for public comment. We are not at this time seeking comment on the how equivalence value is calculated for fuels other than renewable electricity.

The history of how equivalence values were conceived and calculated plays an important role in how the discussion on potentially establishing a unique equivalence value for RINs generated for renewable electricity should be framed. In the preamble to RFS1 final rule we stated: [305]

> To appropriately account for the different energy contents of different renewable fuels as well as the fact that some renewable fuels actually contain some non-renewable content, we are requiring that Equivalence Values be calculated using both the renewable content of a renewable fuel and its energy content. This section describes the calculation methodology for Equivalence Values. In order to take the energy content of a renewable fuel into account when calculating the Equivalence Values, we must identify an appropriate point of reference. Ethanol is a reasonable point of reference as it is currently the most prominent renewable fuel in the transportation sector, and it is likely that the authors of the Act saw ethanol as the primary means through which the required volumes would be met in at least the first years of the RFS program. By comparing every renewable fuel to ethanol on an equivalent energy content basis, each renewable fuel is assigned an Equivalence Value that precisely accounts for the amount of petroleum in motor vehicle fuel that is reduced or replaced by that renewable fuel in comparison to ethanol. To the degree that corn-based ethanol continues to dominate the pool of renewable fuel, this approach allows actual volumes of renewable fuel to be consistent with the volumes required by the Act.

This language establishes two important precepts: (1) Equivalence values are to be calculated using both the renewable content of the fuel and its energy content; and (2) Corn-based ethanol was selected as the reference fuel. These principles were reaffirmed in the current regulatory structure for the RFS program in 2010 when the EPA decided, through a notice and comment rulemaking, to retain the use of an energy and renewable content-based equivalence value for purposes of calculating the number of RINs generated for any quantity of renewable fuel. Therefore, the EPA has maintained the position that although there are efficiency differences present in the operation of ICEs, including those powered by different fuels, the current equivalence value of 22.6 kWh per gallon of ethanol is appropriate. However, due to concerns raised by various parties that maintaining this position may unduly negatively affect the renewable electricity pathway, we are seeking comment on whether a

[305] See 72 FR 23920 (May 1, 2007).

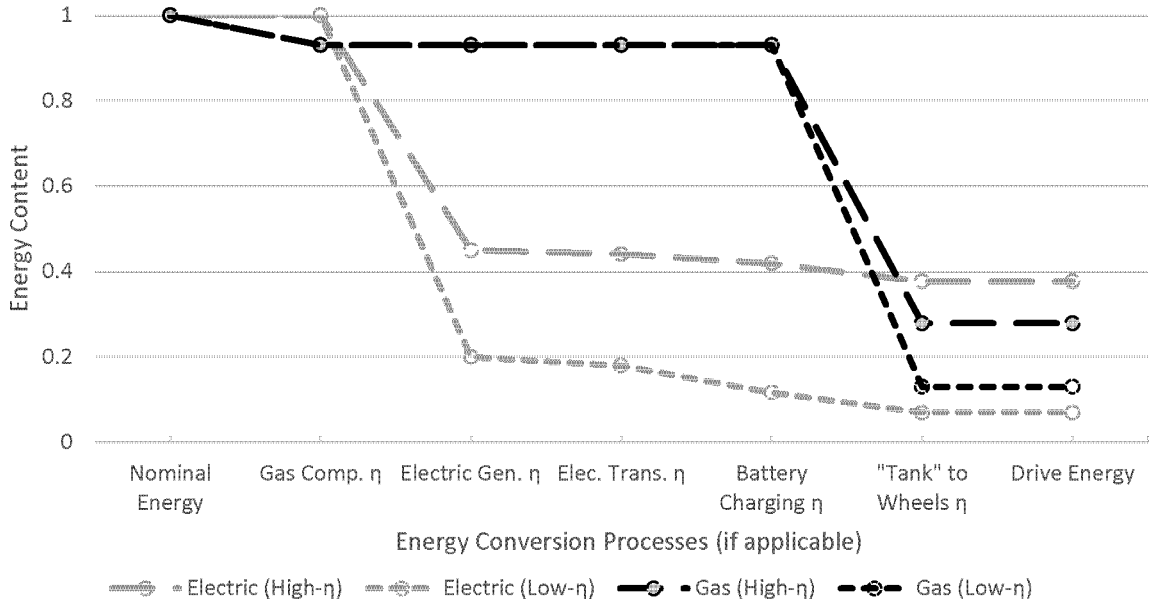
different means of determining the equivalence value for renewable electricity would be appropriate. The following discussion is broken into segments which address the many issues that have been raised concerning renewable electricity RIN generation.

1. Landfill Gas Pathway Effectiveness

Proponents of revising the equivalence value for renewable electricity have noted that aside from electricity, all of the approved fuels under the RFS are chemical fuels and this difference requires a novel approach. Their supporting reasoning is as follows: Electric motors used to propel a vehicle are not subject to the same fundamental efficiency limitations of ICEs. This makes electricity fundamentally different and unique and means that a ''gallon of gasoline equivalent'' of electricity in the battery of an EV provides several times more miles of transportation service than a gasoline vehicle with a gallon of ethanol in the tank. If we constrain the bounds of the analysis to a ''tank-to-wheels'' efficiency metric as they are suggesting should be done, then it is undeniable that EVs are far more efficient that ICE powered vehicles. A representative value for a tank-to-wheels efficiency for EVs is near 90 percent, whereas a value around 20–30 percent is representative of ICEs. Using this logic, it is understandable that proponents of revising the equivalence value feel that the EPA is not capturing the superiority of EVs consuming renewable electricity compared to ICEs consuming chemical fuels in the current equivalence value. However, it should be noted that the EPA is currently giving credit for electric vehicle efficiency to vehicle manufacturers under the Light Duty Vehicle GHG program.

An alternative interpretation could also be reached if the scope of the analysis is broadened. Using a source of renewable electricity, landfill gas (LFG), as the starting point of this comparison, there are currently two approved pathways under the RFS program by which LFG can be utilized to generate RINs. One of these is the direct use of the cleaned LFG to generate renewable electricity (referred to as ''Electric''), typically in an ICE or a turbine. The other pathway is to upgrade the LFG to high BTU ''Renewable Gas'' (referred to as ''Gas''), which can then be compressed and used in CNG/LNG vehicles as transportation fuel. As shown in Figure VII.D.1–1 below, these two pathways are assessed to determine the quantity of original energy content from the LFG that is ultimately available to provide drive energy to propel a vehicle. Starting with a nominal unit of energy, each conversion process in the value chain for each respective pathway is assessed a high and low efficiency to provide a rough bandwidth for drive energy efficiency.

Figure VII.D.1-1: Landfill Gas Use Scenarios



The specific assumptions for this illustrative comparison for the efficiency of the energy conversion processes in Figure VII.D.1–1 are presented in Table VII.D.1–1 below.

TABLE VII.D.1–1—LANDFILL GAS USE SCENARIO ASSUMPTIONS

Landfill gas use scenario	Nominal LFG energy	Gas compression η (%)	Electricity compression η (%)	Electricity transmission η (%)	Battery charging η (%)	''Tank'' to wheels η (%)	Drive energy available
Electric (High-η)	1	n/a	45	98	95	90	0.38
Electric (Low-η)	1	n/a	20	90	65	60	0.07
Gas (High-η)	1	93	n/a	n/a	n/a	30	0.28
Gas (Low-η)	1	93	n/a	n/a	n/a	14	0.13

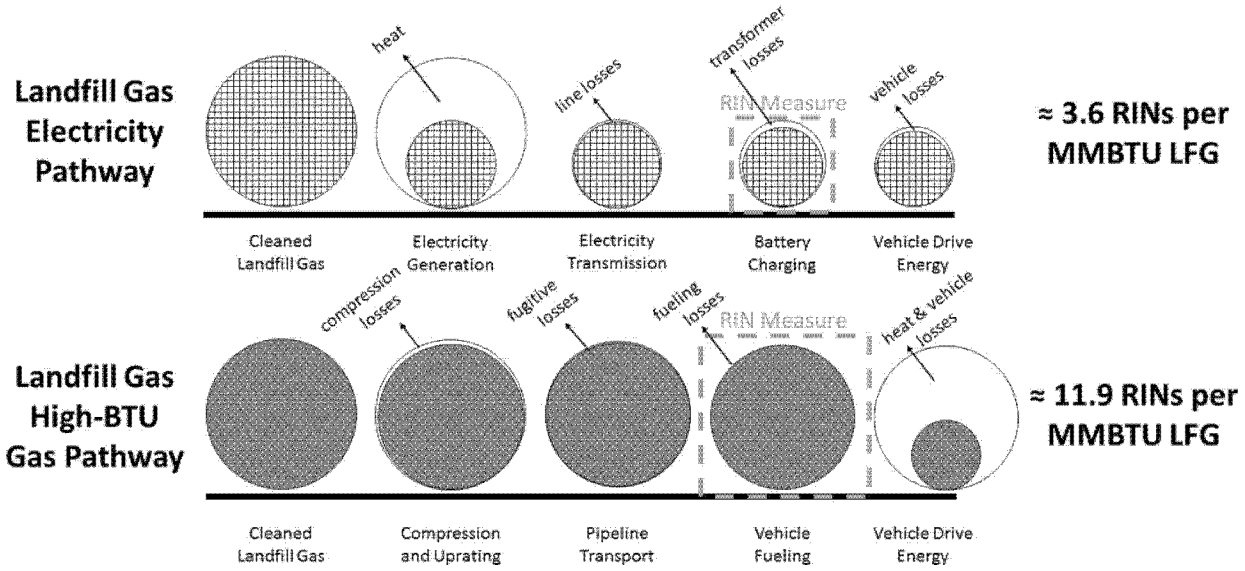
The energy required for gas compression for the gas pathway was calculated assuming an isentropic efficiency of 80 percent, a CNG pressure of 3600 psi, and it was assumed that the compressor was consuming electricity generated from LFG at an efficiency of 35 percent. This way of representing the energy penalty of upgrading LFG to CNG may be simplistic, but we believe it provides sufficient accuracy for this relative assessment of the two pathways. The ''tank'' to wheels efficiency values for ICE engines [306] are representative of the upper and lower bounds of expected fuel energy to drive energy conversion. The ''tank'' (battery) to wheels efficiency upper-bound is representative of reported values by manufacturers and the lower-bound is an assessment based upon reported behavior of EVs in cold weather, but no reliable empirical data was available to substantiate the value used of 60 percent.

The key point illustrated by the Figure VII.D.1–1 is that the Electric pathway is not always superior to the Gas pathway on a drive energy provided basis when starting with the same quantity of landfill gas. Depending on the efficiencies for key energy conversion processes, either of the pathways can appear superior to the other. By contrast, an analysis using median efficiency values for all the energy conversion processes highlighted, would find that the overall efficiency of converting LFG to drive energy in a vehicle is roughly equivalent regardless of the pathway chosen. If both pathways generated RINs based upon the quantity of LFG used, the resulting interpretation of delivered drive energy parity between the pathways for establishing a novel equivalence value for the electricity pathway would likely be that no change to the EPA's current energy content methodology would be warranted. However, neither pathway is currently evaluated based upon the quantity of LFG used to deliver drive energy.

2. RIN Generation and Measurement Location

Another important, and tightly coupled aspect, of the equivalence value issue is where the RINs are generated along the value chain. Whether bulk gas from the LFG producer, electricity generator LFG consumption or electricity production, electrical feed to the battery charging device, or onboard vehicle state of charge is designated as the point of RIN generation can have a significant effect on the quantity of RINs generated. The determination of an appropriate point in the value chain for RIN generation is a major factor highlighted by parties suggesting an undervaluation of RINs generated from electricity. Those stakeholders have asserted that there is inequity created by allowing the Gas pathway for LFG to be measured on the upstream side of the ICE (the vehicle's ICE) while the Electric pathway is required to be measured on the downstream side of the ICE (the electrical generation equipment). This idea is illustrated in Figure VII.D.2–1 below, where each LFG pathway starts with 1 MMBTU of cleaned LFG on the left and the required conversion processes for each pathway are applied cumulatively moving to the right.

Figure VII.D.2-1. Hypothetical RIN Generation for Electric and Gas Pathways



The quantity of energy from the nominal cleaned LFG that remains for Vehicle Drive Energy is very similar for each pathway. However, due to the point in the process at which energy is measured for RIN generation in the two pathways currently, the Gas pathway produces roughly 3.5 times the RINs for an equivalent quantity of cleaned LFG. The EPA seeks comment on whether the parity that is observed in the delivered vehicle drive energy between the two pathways should be reflected by the quantity of RINs generated by the two pathways and requests comment on the appropriate means of doing so.

One means of ensuring that the Gas and Electric pathways for LFG would generate commensurate quantities of RINs would be to have RIN generation be tied to the quantity of LFG consumed. However, the EPA has concerns regarding the potential generation of RINs from LFG prior to the generation of electricity as this may create a perverse incentive for generators to operate inefficiently. Put

[306] See *https://www.fueleconomy.gov/feg/atv.shtml.*

another way, if credits are given based upon the amount of LFG that gets converted to electricity rather than on the amount of electricity generated, operators may be incentivized to consume more LFG to meet demand. This concern is more plausible given the current oversupply of electricity generated from LFG relative to the quantity of electricity consumed by EV charging (and eligible for RINs). Consequently, it may be more appropriate to maintain RIN generation for renewable electricity after generation of the electricity.

3. Additional Challenges Unique to Electricity

Unlike the chemical fuels typically used to generate RINs under the RFS program, which incur very minimal loses from the time they are produced until they are consumed in the vehicle, renewable electricity used as a transportation fuel presents some unique challenges. As a result, one of the requirements being considered for parties interested in generating RINs for renewable electricity is for the parties to ensure that a corresponding quantity of biogas-generated electricity is produced to provide the ultimate kWh converted to transportation fuel. One interpretation of this provision is that RINs would be awarded exclusively based on the quantity of kWh increased in the battery of the EV being fueled, and should therefore account for the efficiency of the charging system used. The degree to which this value varies from the quantity of kWh used to charge the vehicle's battery is a function of the efficiency of the charging system used to alter the battery's state of charge. Depending on whether a system is inductive or conductive, level I, II, fast charging, or something yet to be developed, there will be associated charging losses. Additionally, the electricity must be generated at facilities that vary in the efficiency by which they convert landfill gas to renewable electricity. There is potential for variation in every energy conversion or transfer process associated with the electricity RIN generation pathway. Furthermore, the transmission of electricity across the country incurs resistive losses, which result in approximately 6 percent of the originally generated kWh being lost before it can even begin the process of being converted to transportation fuel. We request comment on the degree to which parties interested in generating RINs for renewable electricity should be responsible for accounting for electricity generation efficiency and the losses associated with EV charging efficiency and the transmission of electricity.

A related complexity for properly determining the amount of RINs to be awarded for a charging event is parasitic and vampire losses. Unlike their ICE counterparts, EVs cannot utilize waste engine heat for passenger compartment heating and must use electricity, which would otherwise be used to propel the vehicle, to warm the passenger compartment. Additionally, parasitic losses associated with maintaining battery pack temperature, providing passenger compartment air conditioning, etc., can amount to a non-trivial quantity of electricity not being used to propel the vehicle. The combined effect of these system losses will inevitably result in less vehicle miles being driven on a given charge than would otherwise be anticipated under more mild conditions. We request comment on whether or not parasitic and vampire losses should be accounted for in determining the number or RINs that should be generated for renewable electricity, as well as options for accounting for these losses.

Finally, the environmental attributes associated with a unit of generated electricity have value above and beyond wholesale electricity depending upon generation source and local environmental compliance market conditions. Several states and regions currently have programs that require electric utility companies to produce or procure an allotment of renewable energy credits (RECs) to be retired annually in order to promote the buildout of renewable electricity. There are also FTC regulations that ensure consumers who purchase products based on advertised reduced environmental impact that these claims are substantiated. Although RIN generation under the RFS program is not constrained by state laws, it is the responsibility of the regulated community to ascertain the extent to which RIN generation under the RFS program has implications for their actions and obligations under state programs and laws administered by other federal agencies.

4. RFS Complications and Ancillary Issues

Several parties have suggested that the equivalence value for renewable electricity should reflect the higher efficiency of electric vehicles. Deviating from the current system for determining the equivalence value, where the number of RINs generated is calculated strictly on the energy content of the fuel entering the vehicle, to a system that also considered the engine and vehicle efficiency would introduce significant complexity to the RFS program. Engine efficiencies vary not only according to fuel type (*e.g.,* gasoline, diesel, natural gas, electricity), but also according to a number of other factors, such as the compression ratio of the engine and final drive ratio. Further, a number of factors specific to each individual driver, such as the type of driving (primarily city vs. highway), environmental conditions (*e.g.,* temperature, elevation change, etc.), and driver behavior, can impact vehicle efficiency. Perhaps more importantly, none of these factors remain constant, as vehicle efficiencies are continuously changing over time. Therefore, it could introduce considerable complexity to consider engine efficiency when calculating the number of RINs that can be generated for any given quantity of fuel under the RFS program. For this reason, at this time we are only seeking comment on a unique methodology for the determination of RINs from renewable electricity and not other biofuels.

Another issue for consideration is that the EPA currently administers programs beyond the scope of the RFS (such as the Light Duty Vehicle and Heavy Duty Vehicle GHG Standards) that already take into consideration and provide credit for engine and vehicle efficiency. Including vehicle efficiency in RIN determination would result in counting the same benefit under multiple programs. For example, if the vehicle manufacturer approach were ultimately selected as the RIN generation structure and an equivalence value that preferentially rewarded the electricity pathway for LFG adopted, vehicle manufacturers would essentially be receiving large quantities of credits for producing EVs under both the RFS program and the Light Duty Vehicle GHG Standard. Such ''double dipping'' may be perceived as unwarranted and inequitable by the taxpayers supporting those programs and the consumers purchasing those vehicles. Similar examples of ''double dipping'' could be postulated for other RIN generation structures. For example, the utility structure where electricity produced from LFG is already accruing a production tax credit of $11/MWh for the plant operator. Providing an additional incentive through the value of the RIN in the RFS program would therefore be providing two incentives for the same engine efficiency benefit. We seek comment on the appropriateness of doing so and introducing vehicle/engine efficiency into the RIN value for RINs generated

for renewable electricity and the appropriate means of doing so.

The EPA believes that the best-case scenario would be the adoption of a structure for generating RINs for renewable electricity that would simultaneously provide greater incentive for EV use and ownership, increase the amount of renewable electricity produced, and minimize challenges related to program oversight. The discussion of potential program structures is meant to elicit comment on the mechanics of the program, what is most likely to be directly incentivized by each, and which entities should ultimately be able to generate RINs in a manner that will minimize the administrative burden of participation for both the RIN-generating entities and the EPA. By opening up for comment the subject of the equivalence value for RINs generated for renewable electricity, the EPA hopes to receive public comment from all stakeholders to better inform any changes to the RIN values in the future. This program represents an opportunity to incentivize more widespread adoption of EVs, but decisions regarding which structure(s) should be adopted, how and at what point RINs should be generated, and what types of data and oversight should be required will ultimately determine the successfulness of any future program. While we are not proposing a particular structure at this point in time, we do recognize the importance of resolving this issue as quickly as possible to support the growth of renewable electricity and electric vehicles. As such, we request not only comments that comprehensively address the range of issues raised in this discussion, but also supporting data that might allow us to move quickly to a proposal.

VIII. Other Revisions to the RFS Program

A. RVO Reporting

Currently, obligated parties report the total volume of gasoline and diesel fuel that they produce or import. This volume is used to calculate their RVOs. In order to more effectively ensure compliance, we are proposing to revise the RVO reporting requirements for obligated parties as described in 40 CFR 80.1451(a) in two ways. First, we are proposing that obligated parties would now report the constituent products described in 40 CFR 80.1407(c) and (e) separately, instead of in total beginning with the 2017 compliance year. This would enable the EPA to more easily track the production of gasoline and diesel by obligated parties and verify that the reported volumes are accurate.

Second, beginning with the 2017 compliance year, we are also proposing to require that obligated parties report heating oil production volumes as part of their annual compliance reports to help ensure that RVOs are appropriately calculated. While heating oil production is not counted towards an obligated party's RVO, it is often chemically identical to diesel fuel. Numerous states and cities in the Northeast and Mid-Atlantic [307] have recently revised their standards for heating oil such that heating oil sold in those states and cities is (or soon will be) subject to the same 15 ppm ultra-low sulfur standard that the EPA established for ultra-low sulfur diesel in 40 CFR part 80, subpart I.[308] As such, refineries are now shipping their heating oil to the Northeast in the same pipelines and in the same batches as diesel fuel. By aligning the production breakdown by category more closely with other fuels programs and collecting heating oil production information, the EPA would be able to help ensure that heating oil and diesel fuel are appropriately accounted for in obligated parties' RVOs.

B. Oil From Corn Oil Extraction

In the RFS2 final rule,[309] the EPA established two pathways (pathways F and H in Table 1 to 40 CFR 80.1426) for biomass-based diesel (D-code 4) or advanced biofuel (D-code 5) made from ''non-food grade corn oil.'' The lifecycle GHG analyses for these pathways were based on the EPA's modeling of corn oil recovered from distillers grains with solubles (DGS) produced by a dry-mill corn ethanol plant through corn oil extraction. The EPA is proposing to revise pathways F and H in Table 1 to 40 CFR 80.1426 to specify that the feedstock is ''oil from corn oil extraction,'' and to include a revised and somewhat broadened definition of ''corn oil extraction.''

The RFS regulations currently define ''corn oil extraction'' as ''the recovery of corn oil from the thin stillage and/or the distillers grains and solubles produced by a dry mill corn ethanol plant, most often by mechanical separation.'' [310] As the industry has evolved and matured, new approaches are being used to extract corn oil, and at different locations in the ethanol production process. Despite the current regulatory language, we believe that the precise timing and method of corn oil extraction is not relevant for GHG reductions to be accomplished pursuant to pathways F and H, provided that: (1) The corn is converted to ethanol; (2) The corn oil is extracted at a point in the dry mill ethanol production process that renders it unfit for food uses without further refining; and (3) The resulting DGS from the dry mill operation is marketable as animal feed. Therefore, we are proposing a revised definition of ''corn oil extraction'' to include these points. The revised definition would include corn oil recovered at any point downstream of when a dry mill corn ethanol plant grinds the corn (provided that the three conditions listed above are satisfied), as corn ground at a dry mill ethanol plant is typically rendered unsuitable for food uses. For example, this would include recovery of corn oil before fermentation from the slurry or liquefaction tanks. It would also include recovery of corn oil after fermentation from the thin stillage and/or DGS. Further, it would also include recovery of corn oil by a third-party from DGS produced by a dry mill corn ethanol plant.[311] Given that the EPA's modeling of corn oil from corn oil extraction for approved pathways F and H considered the impacts of using the DGS co-product as animal feed, the proposed revision also specifies that the oil extraction results in DGS that is marketable as animal feed.

Based on currently available information, the indirect GHG impacts of using corn oil recovered through means other than corn oil extraction as a biofuel feedstock are likely to be different than the GHG impacts for corn oil extraction that the EPA modeled for the RFS2 final rule. The corn fractionation and wet milling processes to recover corn oil are not covered either by the existing definition or the proposed definition of ''corn oil extraction.'' [312] Given the other potential market impacts of using corn oil recovered by corn fractionation or wet milling as a biofuel feedstock, the EPA is not in a position to determine whether corn oil from those sources meets the GHG reduction thresholds for

[307] Connecticut, Delaware, Maine, Massachusetts, New Jersey, New York, Rhode Island, Vermont, and the city of Philadelphia, along with a proposal for the District of Columbia.

[308] See the New England Fuel Institute's (NEFI) ''State Sulfur & Bioheat Requirements for No. 2 Heating Oil in the Northeast & Mid-Atlantic States,'' available in the docket for this action.

[309] See 75 FR 14670 (March 26, 2010).

[310] See 40 CFR 80.1401.

[311] Like any other renewable fuel producer, such a third-party would be required to satisfy requirements designed to ensure that their biofuel product is derived from renewable biomass.

[312] The RFS regulations at 40 CFR 80.1401 define corn oil fractionation as ''a process whereby seeds are divided in various components and oils are removed prior to fermentation for the production of ethanol.''

non-grandfathered fuel that is required by the CAA. Companies wishing to produce non-grandfathered biofuels from corn oil that is not recovered by corn oil extraction may petition the EPA for approval of their proposed pathway pursuant to 40 CFR 80.1416.

C. Allowing Production of Biomass-Based Diesel From Separated Food Waste

In the RFS2 final rule, we determined that waste grease biodiesel achieved an 86 percent reduction in lifecycle GHG emissions compared to the baseline diesel fuel. This analysis formed the basis for our determination that the biodiesel from biogenic waste oils/fats/greases would qualify for generation of biomass-based diesel (D-code 4) and advanced biofuel (D-code 5) RINs. These pathways are specified in Rows F and H of Table 1 to 80.1426.

We have received a request to approve a pathway for the use of non-cellulosic portions of separated food waste to produce biodiesel. The process by which the food waste would be converted to biodiesel is similar to the process we modeled in the RFS2 final rule for waste oils/fats/greases biodiesel. In addition, as a waste product, separated food waste would have negligible GHG emissions associated with its production, as is the case for waste oils/fats/greases. Therefore, we believe that utilizing separated food waste to produce biodiesel would have a similar lifecycle emissions profile as using biogenic waste oils/fats/greases to produce biodiesel. As a result, we are proposing to amend the pathways specified in Rows F and H of Table 1 to 80.1426 to allow for the generation of D-code 4 and D-code 5 RINs for the production of biodiesel and advanced biofuel, respectively, from the non-cellulosic portions of separated food waste. This amendment is consistent with the CAA, which defines both biomass-based diesel and advanced biofuels as fuels that result in at least 50 percent less GHG emissions than the petroleum fuels they replace.

For the same reasons, and to provide more flexibility to renewable fuel providers, we are also proposing that renewable diesel made from the non-cellulosic portions of separated food waste would qualify for the generation of D-code 4 and D-code 5 RINs. This additional flexibility is also reflected in proposed amendments to Rows F and H of Table 1 to 80.1426.

D. Registration of New and Expanded Grandfathered Volumes

The CAA and the EPA's implementing regulations provide for two exemptions to the otherwise generally applicable requirement that all qualifying renewable fuel attain at least a 20 percent lifecycle GHG reduction as compared to baseline petroleum fuel. The first exemption is for a baseline volume of fuel from facilities that commenced construction prior to December 19, 2007, and completed construction by December 19, 2010, without an 18 month hiatus in construction.[313] The second exemption is for a baseline volume of ethanol from facilities fired by natural gas or biomass that commenced construction after December 19, 2007, but prior to December 31, 2009, and completed construction within 36 months without an 18 months hiatus in construction.[314] In both cases the baseline volume of exempt fuel for qualifying facilities is determined by reference to the most restrictive of all applicable preconstruction, construction, and operating permits issued prior to December 19, 2007, or December 31, 2009, depending on which exemption is applicable. If permitted capacity cannot be determined, the baseline volume is calculated by reference to actual production volumes in a specified historic time period. In the RFS2 final rule, the EPA noted that verifying the facts underlying claims related to exempt baseline volumes was likely to become increasingly difficult over time, and therefore included a requirement that applications for registration of facilities claiming an exemption from the 20 percent GHG reduction requirement be submitted to the EPA by May 1, 2013.[315] In a later action, the EPA extended this deadline to July 1, 2013.[316] The regulation also provided, however, that the EPA could continue to process registration applications for facilities seeking an exemption from the 20 percent GHG reduction requirement after July 1, 2013, if the EPA, in its sole discretion, determined that it could adequately verify the factual basis for a producer's claims.

Although the EPA envisioned that it would stop processing registration requests for facilities claiming an exemption from the 20 percent GHG reduction requirement after the regulatory July 1, 2013, deadline, we have exercised our discretion to review a number of additional requests on a case-by-case basis. Since the July 1, 2013, deadline, we have accepted approximately 12 requests for either new registrations or for amendments to the registered baseline volume of exempt fuel at a facility. We are aware of approximately 13 additional requests of this nature pending with the EPA, but expect that there may be additional applications undergoing initial processing by EPA contractors.

The EPA is proposing November 16, 2016, as a firm cut-off date for the receipt by the EPA of registration materials related to facilities not previously registered with the EPA that seek to produce renewable fuel exempt from the 20 percent GHG reduction requirement, and for currently-registered facilities that seek to amend their registrations to increase the registered baseline volume of renewable fuel exempt from the 20 percent requirement. The primary reason for this proposed change is that it has become increasingly difficult for EPA staff to independently verify the authenticity of the air permits, construction permits, or similar documents that are in some cases over 10 years old, to determine whether a complete set of such permits has been provided by the would-be registrant, or, in the alternative where permitted capacity cannot be determined, to verify the actual production volumes from facilities during historic time periods. Thus, we believe this proposal is justified for the reason expressed in the current regulation—that registration applications, cannot be verified by the EPA in the same manner as would have been possible with a timely submission. While this may also be the case for submissions received prior to November 16, 2016, we are proposing to review those submissions on a case-by-case basis. A secondary basis for our proposal is related to the first. The later the date of registration submissions that are based on data pre-dating 2007 or 2009, the greater the burden on EPA staff to attempt to verify the claims. This additional burden prevents or limits EPA staff from timely attending to other critical implementation and enforcement matters.

Although there is scant legislative history for EISA to shed light on the purposes of the statutory exemptions from the 20 percent GHG reduction requirement, we believe it is likely that the primary purpose of the exemptions was to protect facilities that had made substantial investments to supply biofuels to the U.S. market in response to the incentives provided by Energy Policy Act of 2005, and that might be financially unable to upgrade their facilities to meet the new 20 percent GHG reduction requirement imposed by EISA. We believe that all such facilities

[313] See 40 CFR 80.1403(c).

[314] See 40 CFR 80.1403(d).

[315] See 75 FR 14690 (March 26, 2010) and 40 CFR 80.1450(f).

[316] See 75 FR 26030 (May 10, 2010).

would have submitted registration materials with the EPA prior to November 16, 2016, and at this point in time allowing continued registration of facilities claiming an exemption is not warranted given the difficulty in establishing facts and verifying documents going back a decade and the considerable administrative burden to the EPA in attempting to do so.

It should be noted that this proposed change would not affect facilities that have already registered with the EPA and are producing renewable fuel pursuant to an exemption from the GHG reduction requirements under the provisions of 40 CFR 80.1403. Those companies would continue to be able to produce renewable fuels that are exempt from the 20 percent GHG reduction requirement, up to their individual baseline volumes. In addition, facilities can register with the EPA at any time for the production of fuels meeting the 20 percent (or greater) lifecycle GHG emissions reduction thresholds applicable to non-exempt renewable fuel.

Given the dynamic nature of the renewable fuels marketplace, facilities are frequently bought and sold, and this proposal is not intended to change the existing practice allowing facilities that change ownership to retain the exemptions available in 40 CFR 80.1403. We are proposing to add language to the regulations to make clear that when a facility is transferred, the new owners are able to register to produce renewable fuel subject to an exemption in 40 CFR 80.1403 to the extent the prior owner's registration reflects eligibility for such an exemption, provided of course that other regulatory requirements are satisfied.

Taken together, these proposed changes would not allow registration of facilities claiming new or expanded exempt baseline volumes if their requests were received by the EPA after November 16, 2016, but would not impact the operations or eligibility for producing fuel pursuant to the exemptions in 40 CFR 80.1403 for facilities that are already registered. If finalized, the EPA would undertake a case-by-case review of all registration applications received prior to November 16, 2016, to ascertain if the claims for eligibility to produce biofuel exempt from the 20 percent GHG reduction requirement are accurate and verifiable, and requests received after that date would be denied for the reasons stated above.

E. Flexibilities for Renewable Fuel Blending for Military Use

The EPA proposes to amend 40 CFR 80.1440 to allow parties that blend renewable fuel to produce fuels for use as transportation fuel, heating oil, or jet fuel under a national security exemption or that sell neat renewable fuel for use in vehicles, engines, and equipment that have a national security exemption for emissions certification to delegate to an upstream party the RIN-related responsibilities (*i.e.,* RIN separation, reporting, recordkeeping, and attest engagement requirements). These parties could include the U.S. Military itself, or contractors working for the U.S. Military. The EPA currently has a provision that allows blenders who handle and blend small volumes of renewable fuel per year (less than 250,000 gallons per year) to delegate RIN-related responsibilities to an upstream party. The EPA has received a number of inquiries from parties that have wished to provide renewable fuel, either neat or blended into transportation fuel, for use by the U.S. Military as part of Department of Defense (DOD) renewable military initiatives. One obstacle to this use of renewable fuel by the DOD is that, unlike other EPA fuels programs, there are no exemptions related to national security uses in the RFS regulatory program.

The EPA believes that it would be appropriate to allow DOD or its contractors to delegate RFS RIN responsibilities to upstream parties; doing so would remove a potential obstacle to the use of renewable fuels by DOD and would promote use of renewable fuel by the military. Therefore, we are proposing similar upstream delegation provisions for neat and blended renewable fuels supplied to DOD under a NSE as those already in place for small renewable fuel blenders. The EPA seeks comment on whether this is appropriate.

F. Heating Oil Used for Cooling

We are proposing to amend the definition of heating oil in 40 CFR 80.1401. This amendment would expand the current definition of heating oil to include fuels that differ from those meeting the current definition only because they are used to cool, rather than heat, interior spaces of homes or buildings to control ambient climate for human comfort. We are also proposing to make minor modifications to the registration, reporting, PTD, and recordkeeping requirements for renewable heating oil to correspond with this change. We have received questions related to the use of renewable heating oil in equipment that cools interior spaces. We believe that displacing the use of petroleum based fuel oil with renewable heating oil for cooling is consistent with the CAA section 211(o) requirements and should be allowed. We seek comment on whether this approach is appropriate.

G. Separated Food Waste Plans

We are proposing to amend the RFS registration procedures for separated food waste plans. The current regulations require that plans include: ''(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 (and incidental other components such as paper and plastics) that is kept separate since generation from other waste materials.'' [317] In addition to submission of separated food waste plans during RFS registration, the EPA also requires that renewable fuel producers using separated food waste feedstock update the registration information whenever there is a change to the plan, and in some cases, the newly updated plan must be reviewed by a third-party engineer in accordance with EPA registration procedures. The EPA has received numerous company updates for production facilities with separated food waste plans, and some parties have noted that the requirement to identify and update suppliers of feedstocks through a plan is overly burdensome.

Recognizing that business relationships for recovery of food wastes evolve and that a renewable fuel producer may elect over time to purchase feedstocks from different or multiple parties, the EPA proposes to remove the requirement to provide the location of every facility from which separated food waste feedstock is collected. It should also be noted that renewable fuel producers are required to retain records that contain this information under the recordkeeping requirements under 40 CFR 80.1454. The RFS regulations only allow renewable fuel producers to generate RINs for fuel if they can demonstrate, pursuant to the recordkeeping requirements, that the fuel was produced from renewable biomass. The recordkeeping section of the regulations requires renewable fuel producers to

[317] See 40 CFR 80.1450(b)(1)(vii)(B).

keep documents associated with feedstock purchases and transfers that identify where the feedstocks were produced and are sufficient to verify that the feedstocks meet the definition of renewable biomass.[318] Removing this registration requirement would alleviate numerous company registration updates as a facility's feedstock supplier list evolves, as well as make it easier for renewable fuel producers to have their separated food waste plans reviewed in a timelier manner. However, renewable fuel producers would still be required to establish that they used a qualifying feedstock to generate RINs.

We are also proposing to modify the regulations to specify that separated food waste plans identify the type(s) of separated food waste to be used and the type(s) of establishment the waste will be collected from. For instance, CAA section 211(o) identifies ''recycled cooking and trap grease'' as an example of a type of separated food waste. Examples of types of establishments could be restaurants, slaughterhouses, or specific food production plants (the kind of food production should be provided). We believe this information is necessary for the EPA to determine whether a renewable fuel producer can make fuel from its proposed feedstock under currently approved separated food waste pathways. Without this information, we would not know what the specific feedstock is (*e.g.,* tallow, yellow grease, etc.) or whether it would qualify as a separated food waste.

We are also proposing to require that producers of renewable fuels made from biogenic waste oils/fats/greases that are not separated food waste to submit a plan at registration with many of the same requirements as the plan for producers of renewable fuels made from separated food waste. We would henceforth refer to such plans as ''waste oils/fats/greases feedstock plans.'' There is significant overlap between the two categories of feedstock, with a considerable quantity of biogenic waste oils/fats/greases qualifying as renewable biomass as a result of its additional qualification as separated food waste. For these reasons, the EPA has required parties intending to use biogenic waste oils/fats/greases as a renewable fuel feedstock to submit separated food waste plans at registration. In addition to helping the EPA determine if the feedstock in question meets renewable biomass requirements, the EPA has found that the plans help the EPA assess whether the feedstocks specified by a prospective producer qualify as biogenic waste oils/fats/greases. This assessment is made on a case-by-case basis. This proposed amendment will conform the regulations to the EPA's current practice. A party fully describing their feedstock in a separated food waste plan would not be required to submit an additional waste oils/fats/greases plan. Since most, if not all, producers of renewable fuel from biogenic waste oils/fats/greases have submitted a separated food waste plan at registration, we do not believe that this revision would add much, if any, burden to existing registered facilities. We propose that those few registered producers using biogenic waste oils/fats/greases who have not previously submitted a separated food waste plan at registration or in a subsequent registration update would be required to do so as part of their next periodic registration update. We seek comment on whether requiring waste oils/fats/greases feedstock plans for producers of renewable fuels from biogenic waste oils/fats/greases is appropriate and whether we should require any additional information.

H. RFS Facility Ownership Changes

We are proposing to amend the RFS registration, EMTS reporting, and RIN generation requirements to more explicitly outline requirements for renewable fuel producers that transfer the ownership of a facility that was registered immediately preceding the sale. Throughout the implementation of 40 CFR part 80 fuels programs (*e.g.,* RFG, Anti-dumping, Gasoline Sulfur, RFS, etc.), the EPA has treated the transfer of ownership of a facility as requiring a new registration. However, the EPA has recognized that many elements of the registration for the facility previously registered to another renewable fuel producer remain the same upon change of ownership and has, in some cases, allowed parties to rely upon previously submitted registration materials. The EPA has tried to work with companies to minimize disruption of continued operation of the facility. However, some new owners have expressed confusion over what the appropriate registration procedures are incident to the transfer of ownership of a previously registered facility. To help ameliorate this potential confusion, we are proposing to amend the RFS registration, EMTS reporting, and RIN generation requirements in three ways.

First, we are proposing that the regulations explicitly note that RINs cannot be generated nor assigned to any batches of renewable fuels in EMTS until a renewable fuel producer has completed all applicable registration requirements and the EPA has accepted that renewable fuel producer's registration. Although this requirement is apparent under the current regulations, since the requirements for RIN generation at 40 CFR 80.1426 only allow for the generation of RINs if all registration requirements under 40 CFR 80.1450 are satisfied, we believe that the requirement can be re-iterated for additional clarity.

Second, we are proposing specific requirements for parties that are assuming ownership of a facility that was already registered by another renewable fuel producer. The renewable fuel producer that would newly acquire the previously registered facility would have to submit all applicable registration information required for the registration of a new renewable fuel producer, an appropriately conducted engineering review, and a letter from the responsible corporate officers (RCOs) of both companies notifying the EPA of the date the transfer of ownership is expected to take place. In addition, proof of sale would need to be submitted after the transfer of ownership is completed. Consistent with the requirements of the registration of a new renewable fuel producer, the new renewable fuel producer would need to supply all information to the EPA (with one exception noted below) 60 days prior to the generation of RINs.[319]

The only exception to the 60-day requirement would be that the new renewable fuel producer may supply the proof of sale or ownership within three business days of the effective date of the transfer of ownership. We recognize that it will likely be impractical for parties to provide appropriate proof of sale or ownership until on or after the actual effective date of the transfer of ownership. Therefore, we are proposing to allow some flexibility on when renewable fuel producers may submit the proof of sale or ownership. The EPA would be able to review all other registration materials well in advance of the effective date of the transfer of ownership and be in a position to approve the new renewable fuel producer's registration shortly after receiving the proof of sale or ownership.

Third, we are proposing that the regulations state that the EPA has the sole discretion to allow the new renewable fuel producer to retroactively generate RINs for renewable fuel produced and sold in the interim between the effective date of transfer of ownership of the facility and EPA acceptance of new registration materials. With EPA approval, the RINs could be assigned in EMTS and back-

[318] See 40 CFR 80.1426(a) and 80.1454(c) and (d).

[319] See 40 CFR 80.1450(b).

dated to the time of renewable fuel sale. In most cases, the EPA should be able to accommodate renewable fuel producers that submit registration materials in accordance with the proposed deadlines for facility ownership changes (*i.e.,* the EPA would be able to accept the registration submission and administratively activate the company in CDX and EMTS with sufficient time for the company to generate RINs within the five business day limitation for such transactions in EMTS). However, instances may arise where the EPA cannot administratively act even when a company has satisfied all the proposed regulatory requirements (*e.g.,* an upgrade to EMTS or government closure). In such cases, the EPA would need to allow the company to bypass certain administrative business rules in CDX and EMTS to generate RINs. This discretion should allow the EPA an adequate amount of time to thoroughly review the submitted registration materials while not risking the continued operation or profitability of facilities that were previously registered. The EPA would not, however, use this discretion to allow the retroactive generation of RINs at a facility for which the new owner did not satisfy all RFS registration requirements.

Taken together, we believe these changes outline what requirements parties are required to meet to register a facility that is changing ownership. We also believe that the proposed changes would allow the EPA the flexibility to work with parties to ensure that companies can continue operation of the facility and generate RINs, when appropriate. We seek comment on whether there are any additional requirements we should specify for parties that are assuming the ownership of a facility, and whether our proposed approach is appropriate.

I. Changes to the Requirements for Independent Third-Party Professional Engineers and Electronic Submission of Engineering Reviews

Independent third-party auditors and professional engineers play critical roles in ensuring the integrity of the RFS program and if renewable fuel is allowed to be produced through the use of biointermediates as we are proposing, there will be a significant expansion in the scope and number of regulated entities under the RFS program, making third-party verifications even more critical. However, in recent years the EPA has taken a number of enforcement actions against renewable fuel producers that generated invalid RINs,[320] and the extent of unlawful and fraudulent activities associated with the RFS program, as demonstrated by these cases, is troubling given the roles that independent third-parties play in the RFS program. The independent third-party professional engineer ensures that a renewable fuel producer can actually produce renewable fuel in accordance with the RFS regulations and thus generate valid RINs, and the independent third-party auditor (when hired by a renewable fuel producer) verifies that the renewable fuel produced adheres to its registered and approved feedstocks and processes, and therefore qualifies for RIN generation under the QAP program. Because we are concerned that independent third-party auditors and professional engineers may not be mitigating unlawful and fraudulent activities in the RFS program to the extent needed for a successful program, we are proposing to strengthen the requirements that apply to these entities. Specifically, we are proposing to modify the requirements for the independent third-party auditors that use approved QAPs to audit renewable fuel production to verify that RINs were validly generated by the producer. The purpose of these modifications is to strengthen the independence requirements that protect against conflicts of interest.

We are also proposing several changes to the requirements for the professional engineer serving as an independent third-party conducting an engineering review for a renewable fuel producer as part of the RFS registration requirements and/or conducting other duties in connection with a renewable fuel producer's registration updates. First, we are proposing to strengthen the independence requirements for third-party professional engineers by requiring those engineers to comply with similar requirements (including the additional requirements we are proposing) to those that currently apply to independent third-party auditors. Second, we are proposing that the third-party professional engineer would be required to register directly with the EPA (as is currently required for third-party auditors). This includes submission of documentation that the third-party engineer meets minimum qualifications (*e.g.,* independence and professional competency requirements) and maintains professional liability insurance. Third, as part of any engineering review, the third-party engineer would be required to submit electronic engineering reports directly to the EPA. This would be a change from current provisions, which require that the renewable fuel producer submits the engineering review report and allows the option for submission of hardcopy engineering review reports via the mail. Fourth, we are proposing that third-party professional engineers provide documents and more detailed engineering review write-ups that demonstrate the professional engineer performed the required site visit and independently verified the information through the site visit and independent calculations. Fifth, we are proposing new prohibited acts applicable to third-party professional engineers to reduce the potential of a conflict of interest with the renewable fuel producer. The purpose of these requirements is to help the EPA and obligated parties better ensure that third-party audits and engineering reviews are being correctly conducted, provide greater accountability, and ensure that third-party auditors and professional engineers maintain a proper level of independence from the renewable fuel producer. Taken together, we believe these proposed requirements would help avoid RIN fraud by strengthening third-party verification of renewable fuel producers' registration information.

1. Third-Party Auditors

As discussed extensively in the EPA's Accidental Release Prevention Requirements: Risk Management Programs under the Clean Air Act proposed rule,[321] third-party independence is critical to the success of any third-party compliance program. Based on the research discussed in that proposal, we believe that the independence requirements applicable to third-party auditors in the RFS program should be clarified and strengthened to further minimize (and hopefully eliminate) any conflicts of interest between auditors and renewable fuel producers that might facilitate improper RIN validation. Currently, the RFS regulations require the auditor to be free from any interest, or the appearance of any interest, in the renewable fuel producer's business.[322] We believe that an appearance of a conflict of interest exists in situations where auditors may have incentives to ensure that their customers continue to produce RINs by not reporting potential issues arising from audits. We are proposing language that clarifies the current prohibition against an appearance of a conflict of interest to include:

[320] See *https://www.epa.gov/enforcement/civil-enforcement-renewable-fuel-standard-program.*

[321] See 81 FR 13638, 13654–62 (March 14, 2016).

[322] See 40 CFR 80.1471(b)(4) and (5).

• Acting impartially when performing all auditing activities.

• Not having conducted research, development, design, construction, or consulting services for the producer within the last three years.[323]

• Not providing business or consulting services for the producer for a period of at least three years following submission of the final QAP audit for the producer.

• Ensuring that all personnel involved in audit activities for a specific producer do not accept future employment with that producer for a period of at least three years following submission of the final QAP audit for the producer.

These provisions are intended to prevent third-party auditors from expecting, anticipating, or conducting prospective ''cross-selling'' of other services unrelated to the QAP verification. They are also intended to prevent third-party auditors from seeking or obtaining employment from producers for which the auditors are conducting QAP verification activities. In both instances, we believe that third-party auditors could be unduly influenced in their QAP verification activities as a result. With regard to companies that employ personnel who previously worked for or otherwise engaged in consulting services with a producer, those companies meet the independence criteria when such personnel do not participate on, manage, or advise the audit teams. Additionally, employees of these companies are not prohibited from accepting future employment with a producer as long as they were not involved in performing or managing the audit.

Additionally, we are proposing to preclude third-party auditors from providing initial and triennial engineering reviews for the same renewable fuel producers. In the RFS QAP final rule, we stated that we continued to be concerned that allowing an auditor to also perform engineering reviews and attest engagements will tie the auditor's financial interests too closely with the renewable fuel producers being audited and could create incentives for auditors to fail to report potentially invalid RINs; however, we did not want to exclude potential third-party auditors that had significant knowledge of the RFS program and renewable fuel production facilities from participating in the QAP program.[324] To balance those concerns, the final rule prohibited third-party auditors from continuing to provide annual attest engagements and QAP implementation to the same audited renewable fuel producer, but allowed third-party auditors to continue to conduct engineering reviews. After further evaluation, we continue to have significant concerns that third-parties that perform engineering reviews and provide QAP services to the same producer may have financial incentives to overlook certain registration and/or RIN generation issues to continue a revenue stream from a renewable fuel producer. Precluding the same entity from providing both engineering reviews and QAP services for the same renewable fuel producer adds an additional level of assurance that RINs are being generated validly. Furthermore, the EPA was initially concerned that the number of third-parties available to conduct both engineering reviews and QAP services was limited. However, the EPA now believes that there are a sufficient number of parties with RFS knowledge to provide these services. Therefore, we believe that allowing these parties to perform both services is no longer needed. We are also proposing that a third-party auditor that provided an engineering review for a renewable fuel producer prior to November 16, 2016, would not be precluded from implementing a QAP for that producer so long as the auditor provides no more engineering review services in the future.

We seek comment on whether these criteria are appropriate and sufficient to prevent any conflict of interest or the appearance of any conflict of interest between the third-party auditor and the renewable fuel producer and to provide maximum assurances that RINs are being generated validly. We seek comment on whether any adjustments to these criteria are necessary for maximum effectiveness and efficiency, including comments or suggestions on how to provide more flexibility into these criteria. We also seek comment on whether the proposed three-year timeframe to separate the audit from other business arrangements is appropriate.

2. Third-Party Professional Engineers

In 2013, a report from the Inspector General for the EPA highlighted concerns with the independence requirements of third-party professional engineers in the RFS program.[325] One way to partially address those concerns is to strengthen the independence requirements for third-party professional engineers and to require submission of engineering reviews from third-party professional engineers directly to the EPA. Currently, third-party professional engineers conduct the engineering review and often provide the report for submission to the renewable fuel producer, who must then submit the report to the EPA.

Engineering reviews from independent third-party professional engineers are integral to the successful implementation of the RFS program. Not only do they ensure that RINs are properly categorized, but they also provide a check against fraudulent RIN generation. As we have designed our registration system to accommodate the association between third-party auditors and renewable fuel producers to implement the RFS QAP, we have realized that both the way engineering reviews are conducted and the nature of the relationships among the third-party professional engineers, affiliates, and renewable fuel producers are analogous to third-party auditors and renewable fuel producers. As a result, we are proposing to strengthen the independence requirements for third-party professional engineers by requiring those engineers to comply with similar requirements (including the additional requirements we are proposing) to those that currently apply to independent third-party auditors. We seek comment on whether the independence requirements that apply to third-party auditors should also apply to third-party professional engineers, and whether any adjustments to the third-party auditor independence criteria are necessary for third-party engineers.

We are also proposing that third-party professional engineers become regulated parties under the RFS program and register with the EPA. Requiring third-party professional engineers to register would allow the EPA to determine that the basic minimum qualifications (*e.g.,* independence and professional competency requirements) are met. One goal we have with proposing the registration submission changes is to leverage the IT infrastructure that we developed to implement the RFS QAP program to deal more directly with the third-party professional engineers. This means that third-party professional

[323] For purposes of this requirement, consulting does not include performing or participating in third-party audits pursuant to 40 CFR 80.1472.

[324] See 79 FR 42094 (July 18, 2014).

[325] U.S. EPA, Office of Inspector General, ''The EPA Should Improve Monitoring of Controls in the Renewable Fuel Standard Program,'' Report No. 13–P–0373, September 5, 2013.

engineers would need to register with the EPA through CDX, the EPA's electronic reporting site, and submit engineering reviews electronically on forms established by the EPA.

Currently, third-party professional engineers conduct the engineering review and often provide the report for submission to the renewable fuel producer, who must then submit the report to the EPA. This creates an opportunity, or at least the perception of an opportunity, for the renewable fuel producer to alter the information submitted to the EPA. Additionally, renewable fuel producers have several options for submitting their engineering review to the EPA: (1) A hard-copy typically as a written report and attachments in a three-ring binder sent through the mail; (2) An engineering review form with accompanying report and attachments in PDF format uploaded to the EPA's registration system (CDX or OTAQREG); or (3) Submission using an EPA-developed electronic webform. The current submission of hard-copy engineering reviews presents a significant administrative burden on EPA staff to process the mail, scan the engineering review report, and upload it to the EPA system to route to the team for review. The hard-copy engineering reviews also create a large volume of paper records that the EPA must further store and protect following CBI requirements, as appropriate. By requiring engineering reviews to be submitted electronically, the EPA would be able to reduce the administrative burden of processing these reports, as well as reduce a significant amount of paper that is used since these reports are typically hundreds of pages long. This proposed change may reduce burden for the submitters as well.

These proposed requirements would eliminate the current options for renewable fuel producers to submit engineering review reports directly to the EPA and for third-party professional engineers to submit engineering review reports in hardcopy via the mail, which could be a concern for some parties. We seek comment on these proposed changes.

If the proposed changes to engineering reviews are finalized, we plan to develop and require a new electronic webform for engineering reviews reflecting those changes at some point in the future. The added benefits of the electronic reporting form are a reduction in errors and omissions for engineering reviews and a more IT-accessible format that would reduce the amount of time that the EPA takes to review and accept RFS registrations. This should allow EPA acceptance of registrations for renewable fuel producers in a timelier manner. However, since the electronic webforms for the engineering reviews may require the EPA to develop new or revise existing systems, including troubleshooting, we may require significant time to fully implement this component after the effective date of these requirements.

We are also proposing to improve the RFS registration requirements for engineering reviews by requiring site visits to take place when the facility is producing renewable fuel. This will provide the regulated community and the EPA with greater confidence in the production capabilities of the renewable fuel facility. Since the adoption of the RFS2 requirements in 2010, most engineering reviews are conducted by a handful of third-party professional engineers. Some of these engineers are using templates that make it difficult for the EPA to determine whether registration information was verified. We are concerned that, in some instances, the third-party engineers are relying too heavily on information provided by the renewable fuel producers, and not conducting a truly independent verification. In order to provide greater confidence in third-party engineering reviews, we are proposing that the engineering review submission include evidence of a site visit while the facility is producing renewable fuel(s) that it is registered to produce. We also propose to incorporate the EPA's current interpretation and guidance into the regulations regarding actions that third-party engineers must take to verify information in the renewable fuel producer's registration application. The amendments would explain that in order to verify the applicable registration information, the third-party auditor must independently evaluate and confirm the information, and cannot rely on representations made by the renewable fuel producer. We believe these amendments would help provide greater assurance that third-party professional engineering reviews are based upon independent verification of the required registration information in 40 CFR 80.1450, helping to provide enhanced assurance of the integrity of the registration materials submitted by the facility, as well as the renewable fuel they produce.

Finally, we are proposing prohibited activities for third-party professional engineers. Specifically, we are proposing to prohibit third-party professional engineers from failing to identify incorrect information in a renewable fuel producer's registration, failing to properly conduct an engineering review, failing to disclose to the EPA any financial, professional, business, or other interest with parties for whom the third-party professional engineer provides services for under the RFS registration requirements. The EPA staff that review RFS registrations have concerns that third-party professional engineers may be acting, independently or through an affiliate, as consultants and agents for the same renewable fuel producer, or that, directly or through an affiliate, they may have a financial interest in the renewable fuel producer, may not appropriately conduct engineering reviews, or may not meet the requirements for independence to qualify as a third-party. We believe that making third-party professional engineers more accountable for properly conducting engineering reviews under the regulations and requiring that they interact more directly with the EPA will help our ability to identify potential conflicts of interests and bring enforcement actions against third-party professional engineers should an issue arise.

We seek comment on these proposed changes and input on whether there is anything else the EPA should do to help ensure that third-party professional engineering reviews are conducted so as to maximize the submission of relevant and accurate information to the EPA.

J. Additional Registration Deactivation Justifications

We are proposing additional circumstances in which the EPA may deactivate the registration of a company, third-party auditor, or third-party engineer under 40 CFR 80.1450(h). In July 2014, the EPA finalized requirements that describe circumstances under which the EPA may deactivate a company registration and an administrative process to initiate deactivation that provides companies an opportunity to respond to and/or submit the required information in a timely manner.[326] Since finalizing these requirements, the EPA has identified a number of other cases in which it would be appropriate to deactivate the registration of a company. In addition we believe the provisions should be extended to cover deactivation of registrations for third-party auditors and third-party engineers. Specifically, we propose to amend the current regulations to provide that the EPA may deactivate registrations of a company,

[326] Under this administrative process, the company will have 14 calendar days from the date of the notification to correct the deficiencies identified or explain why there is no need for corrective action. See 40 CFR 80.1450(h)(2)(i).

third-party auditor, or third-party engineer for the following reasons:

- The company, third-party auditor, or third-party engineer fails to comply with the registration requirements of 40 CFR 80.1450.
- The company, third-party auditor, or third-party engineer fails to submit any required report within thirty days of the required submission date.
- The company, third-party auditor, or third-party engineer fails to pay a penalty or to perform any requirements under the terms of a court order, administrative order, consent decree, or administrative settlement agreement between the company and the EPA.
- The company, third-party auditor, or third-party engineer submits false or incomplete information.
- The company, third-party auditor, or third-party engineer denies the EPA access or prevents the EPA from completing authorized activities under CAA section 114 despite our presenting a warrant or court order. This includes a failure to provide reasonable assistance.
- The company, third-party auditor, or third-party engineer fails to keep or provide the EPA with the records required in 40 CFR 80.1450.
- The company, third-party auditor, or third-party engineer otherwise circumvents the intent of the CAA or 40 CFR part 80, subpart M.

These deactivation circumstances are consistent with cases where the EPA may deny or revoke a certificate of conformity under 40 CFR 1051.255(c) and 86.442–78 for engines and vehicles manufactured in or imported into the U.S. In addition, we are proposing that in instances of willfulness or those in which public health, interest, or safety requires otherwise, the EPA may also deactivate the registration of a company, third-party auditor, or third-party engineer registration without providing notice to the company, third-party auditor, or third-party engineer prior to deactivation, and would send written notification to the RCO describing the reasons for the deactivation. Companies, third-party auditors, or third-party engineers could still submit new registrations after appropriate actions were taken by the company, third-party auditor, or third-party engineer.

We believe these proposed amendments would help parties better understand when the EPA intends to restrict a party's participation in the RFS program as well as the procedures that will be used in such circumstances. We seek comment on whether there are any additional circumstances when the EPA should deactivate the registration of a company, third-party auditor, or third-party engineer.

K. Registration of Biogas Producers

Consistent with our proposed approach for biointermediate producers, we are proposing that biogas producers whose biogas is used to produce renewable electricity or CNG/LNG would be required to register with the EPA and would be liable for violations of the applicable RFS requirements, and that renewable fuel producers may only generate RINs for renewable fuel produced from biogas sourced from a registered biogas producer.[327] A biogas producer would be defined as the owner of any landfill, municipal wastewater treatment facility digester, agricultural digester, or separated MSW digester that produces biogas used to produce renewable electricity or CNG/LNG. Biogas producers registering with the EPA would be required to undergo a third-party engineering review, which we believe would help ensure that the RINs generated for fuel derived from this biogas are indeed valid. We are not proposing that biogas producers submit additional reports to the EPA since the existing reporting requirements for parties that generate RINs for fuel made from biogas are sufficient. We also do not believe that additional PTD, attest engagement, or recordkeeping requirements are necessary. Our intent is not to substantially alter the current requirements for renewable electricity or CNG/LNG produced from biogas, but rather to provide an additional level of assurance through registration of biogas producers that biogas used to make renewable electricity or CNG/LNG meets regulatory requirements. [328] However, we recognize that additional reporting and third-party verification (*i.e.,* through attest engagements) could help ensure that RINs generated for fuel derived from biogas have the same level of compliance assurance as RINs generated for fuel produced through other pathways. We request comment on this proposed change and whether there are any additional requirements that should be imposed on biogas producers.

L. New RIN Retirement Section

We are proposing to create a new section in the RFS regulations for RIN retirements. The regulations have specific sections that address when and how parties may generate and separate RINs. However, the cases where parties must retire RINs are identified in various sections throughout the regulations. The new section of the RFS regulations for RIN retirements would simply organize these current sections into one place. The EPA is aware of some confusion for some responsible parties causing those parties to improperly retire RINs or fail to retire RINs when they have a responsibility to do so under the regulations. Improper retirements can lead to a time-consuming remediation process, both for the EPA and responsible parties. This new section attempts to organize these requirements into one location in the regulations to make these determinations simpler to locate and understand.

We are also proposing new regulatory language for cases requiring RIN retirement that are identified in EMTS, but may not be clear in the regulations, given their current organization. Our intent is not to add additional burden on parties that must retire RINs under the RFS program, but rather to make the regulations consistent with how parties retire RINs in EMTS and help reduce potential confusion regarding the situations when parties must retire RINs.

Taken together by enumerating the specific instances in which a party must retire RINs in a new specific section of the regulations and by making those retirements consistent with how parties administratively retire RINs in EMTS, we believe that the newly proposed RIN generation section would provide beneficial clarification.

M. New Pathway for Co-Processing Biomass With Petroleum To Produce Cellulosic Diesel, Jet Fuel, and Heating Oil

One of the potential technologies that may be enabled to participate in the RFS program by the proposed regulations for biointermediates is the production of bio-oil from cellulosic feedstocks. While these bio-oils can be upgraded to finished transportation fuels at stand-alone facilities that process only renewable biomass and RINs can be generated for these fuels under the existing RFS regulations, it may be more efficient and cost-effective to upgrade these bio-oils along with petroleum crude oils at existing refineries. Currently, pathways exist for renewable gasoline and gasoline blendstock (Pathway M in Table 1 to 40 CFR 80.1426) and naphtha (Pathway N in Table 1 to 40 CFR 80.1426) produced from cellulosic biomass that is co-processed with petroleum. However, there is currently no pathway for diesel,

[327] It should be noted that in cases where the biogas producer is the RIN-generating party, the producer would already be registered with EPA, and no additional registration would be required.

[328] Biogas producers would have to keep records related to their registration similar to other parties.

jet fuel, or heating oil produced in this manner.

The current pathway for cellulosic diesel, jet fuel, and heating oil (Pathway L in Table 1 to 40 CFR 80.1426) excludes processes that co-process renewable biomass and petroleum. To qualify as cellulosic diesel, a fuel must meet the requirements for both cellulosic biofuel and biomass-based diesel. The definition of biomass-based diesel explicitly excludes renewable fuels that are derived from co-processing biomass with petroleum, and therefore a process that produces diesel, jet fuel, or heating oil by co-processing renewable biomass with petroleum cannot qualify as biomass-based diesel or cellulosic diesel under Pathway L in Table 1 to 40 CFR 80.1426. The EPA is proposing a new pathway that would allow these fuels to qualify as cellulosic biofuel and generate cellulosic (D-code 3) RINs, as cellulosic biofuels that are not prohibited from being derived from biomass co-processed with petroleum. We are also proposing to amend the definition of cellulosic diesel to no longer require that it meet the definition of biomass-based diesel, and proposing to create a new definition for cellulosic biomass-based diesel to refer to fuels that meet the definition for both cellulosic biofuel and biomass-based diesel. Fuels that meet the cellulosic biomass-based diesel definition would be able to generate D7 RINs, while fuels that meet the cellulosic diesel definition but not the cellulosic biomass-based diesel definition due to co-processing with petroleum would be able to generate D3 RINs.

We believe that the lifecycle modeling that was done for the current pathway for cellulosic diesel, jet fuel, and heating oil provides sufficient basis for concluding that fuels produced using similar processes and technologies, where the only difference is that the bio-oil is co-processed with petroleum, meet the appropriate GHG reduction thresholds. Any emissions related to the transportation of bio-oil from the production site to a refinery or other facility that co-processes renewable biomass with petroleum to produce transportation fuel is not expected to have a significant impact on the emissions of these fuels. We seek comment on whether this proposed approach is appropriate.

N. Vegetable Oil as Feedstock and Renewable Fuel

Vegetable oils (*e.g.*, soy oil, algal oil, corn oil, and many waste plant oils) can be used as feedstock both for biodiesel production and for the production of drop-in renewable diesel that meets the same specifications as petroleum-based diesel fuel. However, vegetable oils can also be blended without processing into petroleum diesel fuel in concentrations up to 5 percent for use in conventional diesel engines, and can be used in their neat form in vehicle engines that have been specifically modified to run on it. Given the possible use of vegetable oils both directly as a transportation fuel and as a feedstock for the production of biodiesel and drop-in renewable diesel fuels, it has been the subject of an overwhelming number of the enforcement actions taken by the EPA for RIN fraud under the RFS program. Typically, parties engaging in fraudulent activity simply purify or clean up vegetable oil to produce a product that they generate RINs for, claiming that it would be used as transportation fuel, but instead sell the vegetable oil to another facility that uses it to produce biodiesel for which RINs are also generated. These cases of RIN fraud have substantially undermined the integrity of the RFS program and significantly increased compliance costs for affected parties as they have had to retire and/or replace the invalid RINs. We believe the RIN fraud problem with vegetable oil is so pervasive that it merits a different approach to RIN generation than most other types of renewable fuels.

As an initial matter, the EPA is proposing two regulatory definitions for vegetable oil that differentiate between its use as a feedstock and its use as a renewable fuel. When vegetable oil is used as a feedstock, we propose to refer to it as ''straight vegetable oil (SVO)''. If the same material is used as renewable fuel (either in a blend with petroleum diesel or in neat form for use in a modified engine), we propose to refer to it as ''viscous non-ester renewable diesel (VRD).'' RINs would not be generated for SVO because it is intended to be used as a feedstock rather than as a renewable fuel, but RINs could be generated for VRD under appropriate conditions.

However, to avoid the enforcement problems noted above, we are proposing unique provisions related to RIN generation for VRD. Although under the RFS program it is generally the renewable fuel producer that generates RINs for renewable fuel, we propose that for VRD this would only be the case if it is intended to be used in its neat form. Furthermore, in such circumstances the producer would be required to demonstrate in their registration submission that an end-user has: (a) Modified engines to operate on the fuel in accordance with an EPA-approved Clean Alternative Fuel Conversion under 40 CFR part 85, subpart F; and (b) contracted with the producer to use the neat VRD as transportation fuel, heating oil, or jet fuel. Given that there are relatively few such EPA-approved Clean Alternative Fuel Conversions, it should not be difficult for the EPA to establish that an end-user has made the necessary modifications at the time of VRD producer registration and would help ensure that RINs are only generated for fuel that is actually used as transportation fuel, heating oil, or jet fuel. Additionally, we are proposing that the VRD producer would need to have the use of the neat VRD verified by a third-party auditor under the QAP program prior to RIN generation.

In instances where VRD is to be blended with petroleum diesel, we propose that the only party that could generate RINs for VRD would be the party actually doing the blending (*i.e.,* the party that uses the VRD to produce a fuel that meets ASTM D975 standards for No. 1 or No. 2 diesel fuel). This approach will best ensure that RINs are not generated for vegetable oils that are actually destined to be used as a feedstock for biodiesel production.[329] Under this proposal, the producers of VRD would be subject to all of the proposed registration, recordkeeping, and reporting requirements for biointermediate producers as described in section III.F of this preamble. Parties blending VRD with petroleum diesel would be required to register with the EPA in a manner that is similar to renewable fuel producers; registration would include, for example, an independent third-party engineering review designed to verify that they have the capability for VRD blending. Since VRD blenders would be RIN generators, they would also be required to submit RIN transaction reports, and keep records related to RIN transactions and blending activity.

VRD would be defined as a form of ''non-ester renewable diesel'' which, in turn, is a type of biomass-based diesel. Therefore, biomass-based diesel RINs (D-code 4) could be generated for VRD under the existing renewable diesel pathways in Table 1 to 40 CFR 80.1426. We are proposing to amend the definition of non-ester renewable diesel in two ways. First, it would differentiate between VRD and non-VRD renewable fuels. The definition would clarify that non-VRD renewable fuels must be produced through a hydrotreating

[329] Under this proposed approach, producers of SVO destined for use as a feedstock to produce biodiesel or renewable diesel would continue to not have to register or report to the EPA under the RFS program.

process and be able to be used in an engine designed to operate on conventional diesel fuel. Such fuels would meet the petroleum diesel specifications in ASTM D975. VRD fuels would be defined as SVO that is intended for use as transportation fuel, heating oil, or jet fuel.

We believe that these proposed amendments would reduce the potential for RIN fraud and provide greater certainty to obligated parties regarding the validity of the RINs they purchase. We seek comment on our proposed approach for vegetable oils, including whether there may be additional scenarios in which it may be appropriate to allow for RINs to be generated by VRD producers.

O. Public Access to Information

The EPA is proposing regulations that would streamline our processing of claims that RFS-related information should be withheld from public disclosure under the Freedom of Information Act (FOIA), 5 U.S.C. 552(b)(4), as CBI. If finalized, the rules would identify which types of RFS information would receive confidential treatment as CBI and which would be available for disclosure in response to a FOIA request without the need for the often time-consuming notice and substantiation procedural requirements that would otherwise be required under 40 CFR part 2, subpart B.

The EPA recently received and responded to a FOIA request seeking release of a substantial amount of RFS transactional and compliance information submitted to the EPA through EMTS and in other formats.[330] The EPA evaluated each EMTS data element within the scope of the FOIA request, and on March 27, 2015, issued a determination identifying the extent to which those elements are eligible for CBI treatment. The FOIA request, and the EPA's response, covered only the data submitted within a certain historic time period. The EPA is proposing to establish by rule that the same determinations of eligibility for CBI treatment would apply to all of the EMTS data elements covered by this determination, regardless of the date the data was received.[331] To the extent that the proposed rules identify data elements as CBI, we note that it is not our intent to suggest that all records making use of such data, including, for example, EPA-derived documents that aggregate the information in a manner that masks individual company data, would necessarily be entitled to protection as CBI. The EPA will continue to make individual case-by-case CBI determinations regarding public disclosure of such records.

In addition, we are proposing to codify a determination that basic information related to EPA actions on petitions for RFS small refinery and small refiner exemptions may not be claimed as confidential business information. Small refineries and small refiners may petition the EPA pursuant to 40 CFR 80.1441 and 80.1442 for an extension of exemptions from RFS compliance obligations on the basis of disproportionate economic hardship. Some petitioners availing themselves of this opportunity have claimed their submissions to be CBI. To the extent that the EPA determines that such CBI claims are justifiable, the EPA protects the information from disclosure to the public pursuant to FOIA Exemption 4, which covers ''trade secrets and commercial or financial information obtained from a person that is privileged or confidential.'' The EPA generally evaluates CBI claims pursuant to its regulations in 40 CFR part 2, subpart B. While it is appropriate to consider the potential that information that the EPA obtains from outside of the agency, such as detailed business information within a petition submission, could qualify for protection as CBI, the courts have clarified that data generated within the government are not ''obtained from a person'' within the meaning of FOIA Exemption 4, and therefore cannot be claimed as CBI.[332] In addition, basic facts related to government decisions are also not entitled to CBI treatment under FOIA Exemption 4.[333] Nevertheless, the courts have recognized that where an agency decision repeats or would otherwise divulge sensitive business information that was submitted to the agency by a person outside of government, that sensitive information does not lose its CBI status by virtue of its reference in the agency decision.[334] In light of this precedent, and to expedite processing of information requests related to EPA small refinery/refiner exemption petition determinations, we propose to clarify in the regulations that a clearly delineated set of basic information related to our decisions on small refinery/refiner exemption petitions is not entitled to treatment as CBI, since it is inherently part of the EPA's decision and is not ''obtained from a person'' outside of government. The EPA does not intend to suggest by this proposal how it will respond to requests for the underlying information provided by petitioners to substantiate a claim of disproportionate economic hardship. Such information is ''obtained from a person'' within the meaning of FOIA Exemption 4, may be claimed as CBI, and will be evaluated on a case-by-case basis by the EPA following the procedures specified in 40 CFR part 2, subpart B, when and if the EPA receives a request for public release of such documents.

The proposed regulations would specify that with respect to each decision on a small refinery/refiner exemption request, we would release to the public the petitioner's name, the name and location of the facility for which relief was requested, the general nature of the relief requested, the time period for which relief was requested, and the extent to which the EPA granted or denied the requested relief. All of this information is inherent to the EPA's decision and, we believe, is not entitled to treatment as CBI. The EPA could post this information on its Web site, or otherwise provide it to the public in response to individual information requests. If finalized, the procedures in 40 CFR part 2, subpart B, related to EPA processing of requests for documents for which CBI claims have been made would not apply to requests for the information specified in the rule.

We also believe that parties cannot claim as CBI information related to the EPA's internal workload, since the matters that the EPA has decided to work on reflect an EPA decision, and those decisions were not ''obtained from a person'' outside of government. Thus, we believe that once a small refinery/refiner petition is accepted by the EPA for processing, and added to the queue of projects that are pending EPA evaluation, basic information regarding the matter is not entitled to treatment as CBI. We propose, therefore, to establish by rule that after adding the response to a small refinery/refiner petition to its queue of projects to be completed, the EPA would publicly release information on the name of the petitioner, the name and location of the facility for which relief was requested, the general nature of the relief requested, and the time period for which relief was requested. This basic information is necessary to

[330] See 79 FR 73577 (December 11, 2014).

[331] The EPA's rationale for these determinations is set forth in ''Freedom of Information Act Request EPA–HQ–2013–006023 (HQ–APP–2013–008586); Confidentiality Determination—Final Version with All Errata Corrected (Clean),'' available in the docket for this action.

[332] See *Board of Trade* v. *Commodity Futures Trading Commission,* 627 F.2d 393, 404 (D.C. Cir. 1980); *Soucie* v. *OST,* 448 F.2d 1067 (D.C. Cir. 1971).

[333] See *Bloomberg* v. *Board of Governors,* 601 F.3d 143 (2d Cir. 2010); *Philadelphia Newspapers Inc.,* v. *HHS,* 69 F. Supp. 2d 63 (D.D.C. 1999).

[334] See *Southern Alliance for Clean Energy* v. *Dept. of Energy,* 853 F. Supp. 2d 60 (D.D.C. 2012).

identify the nature and scope of work that the EPA has decided to undertake. The EPA could post this information on its Web site, or otherwise provide it to the public in response to individual information requests. If finalized, the procedures in 40 CFR part 2, subpart B, would not apply with respect to requests for the information specified in the rule.

Finally, we are proposing that the EPA is not releasing information that is entitled to protection as CBI when it posts on its Web site or otherwise publicly releases EPA enforcement-related determinations or actions, together with basic information regarding the party or parties involved and the RINs in question. The EPA determinations and actions covered by this proposal include EPA determinations that RINs are invalid under 40 CFR 1474(b)(4)(i)(C)(2) and 1474(b)(4)(ii)(C)(2), notices of violation, administrative complaints, civil complaints, criminal informations and criminal indictments. The information that the EPA may post or otherwise publicly release in the context of these determinations or actions includes the company name and EPA identification number of the company that generated the RINs in question, the facility name and EPA identification number of the facility at which the fuel associated with the RINs in question was allegedly produced or imported, the total quantity of RINs in question, the time period when the RINs in question were generated, and the batch number(s) and the D code(s) of the RINs in question. This basic information is central to the EPA's enforcement-related actions and determinations. Since these actions and determinations are not ''obtained from a person'' outside of the EPA, they and the basic information necessary to describe them cannot be claimed as CBI. Thus, while we are proposing that most RIN-related information is generally entitled to treatment as CBI, as discussed above, we are also proposing as an exception to that general rule that basic RIN information that is central to the EPA's enforcement-related actions and determinations is not entitled to such treatment.

We believe that publicly releasing the EPA's enforcement-related actions and determinations described above is important to successful operation and integrity of the RFS program. Doing so may prevent parties from unwittingly transferring or attempting to use invalid RINs for compliance, in contravention of the RFS regulations, or from investing in invalid RINs that they will be unable to use for compliance. We seek comment on whether any additional factual information relating to the EPA actions described above should be identified as ineligible for CBI protection and whether there are additional EPA actions and determinations that we should identify as including RIN-related information that does not qualify for CBI protection.

We note that existing EPA regulations governing treatment of CBI define the term ''person'' in 40 CFR 2.201(a) as including government agencies and their employees. We believe that this is appropriate, since we acknowledge that there may be instances where a government report or decision could contain detailed information generated by the EPA, but which is based on information submitted from outside of the EPA and which could create competitive harm to the non-government data submitter if released. We propose to interpret our regulatory definition of ''person'' in accordance with the court decisions interpreting the phrase ''obtained from a person'' for purposes of FOIA Exemption 4, to both allow the EPA to withhold EPA-generated records in appropriate circumstances where necessary to prevent disclosure of information obtained from outside the EPA to inform those decisions, and to release basic information related to EPA decisions and workload as proposed in this action. However, we solicit comment on whether the regulatory definition of ''person'' should be amended to more clearly align with this proposal.

P. Grandfathered Facilities

The CAA provides an exemption from the minimum 20 percent lifecycle GHG reduction requirement for a baseline volume of fuel made from two classes of facilities; those that commenced construction prior to the date of EISA's enactment, and ethanol facilities fired by natural gas or biomass that commenced construction prior to December 31, 2009.[335] While these facilities need not produce fuel pursuant to a pathway specified in Table 1 to 80.1426, they are nevertheless required to use feedstock that meets the CAA's definition of ''renewable biomass.'' In light of implementation and enforcement concerns related to tracking renewable biomass through a number of processing steps over multiple facilities, we are proposing that fuel will not qualify for an exemption from the 20 percent lifecycle GHG reduction requirement unless it is: (1) Produced from renewable biomass in a single facility; (2) Made at a single facility from a feedstock that is derived from renewable biomass and is listed in Table 1 to 40 CFR 80.1426; or (3) Made at a single facility from renewable biomass that was pre-processed at another facility if that pre-processing at another facility was limited to form changes such as chopping, crushing, grinding, pelletizing, filtering, compaction/compression, centrifuging, dewater/drying, melting, and/or the addition of water to produce a slurry. We seek comment on our proposed approach.

To help implement this proposed change, the EPA is also proposing changes to the registration and registration update requirements for renewable fuel producers that either already have facilities registered with an exemption under 40 CFR 80.1403 or renewable fuel producers that have facilities that would have been able to claim an exemption under 40 CFR 80.1403 but cannot due to the proposed change. Since the EPA would no longer need to establish a baseline volume from permits or production information prior to December 19, 2007, or outdated production information, the EPA is proposing that facilities that would have been able to claim the exemption (*i.e.,* those constructed prior to December 19, 2007, or December 31, 2009, depending on the exemption) only submit the most recent permits or, if not available, recent production information to establish a facility's baseline volume. Additionally, for three-year registration updates, the EPA is proposing that facilities already claiming an exemption under 40 CFR 80.1403 would no longer need to provide copies of air permits to establish exempted baseline volumes since all parties that could claim the exemption under 40 CFR 80.1403 would have done so. The net result of this change is that all facilities would need to submit their most recent air permits or production information during initial registration or three-year registration updates and parties would not need to submit older air permits and production information to establish baseline volumes.

To help distinguish total baseline volumes from exempted baseline volumes, the EPA is proposing to redefine the term ''baseline volume'' and create a definition for ''exempted baseline volume.'' The proposed definition for exempted baseline volume would include the permitted capacity as established in air permits prior to December 19, 2007 or older production records as defined in the current definition of actual peak capacity. This definition should be consistent with the baseline volumes previously established for facilities claiming an exemption

[335] See 40 CFR 80.1403.

under 40 CFR 80.1403. However, many facilities that claim an exemption under 40 CFR 80.1403 also produce renewable fuels that do not claim the exemption. This leads to situations where the reported baseline volume may not be consistent with the total actual production capacity of the facility. Therefore, the EPA is also proposing to amend the definition of baseline volume to better establish a facility's total production capacity. Under this proposal, all facilities would need to submit recent air permits or production information to establish current baseline volumes. However, only facilities claiming a new exemption under 40 CFR 80.1403—for example, facilities claiming an exemption under 40 CFR 80.1403 involved in a change of ownership—would need to submit information related to an exempted baseline volume. Facilities would still need to maintain air permits and documentation used to establish exempted baseline volumes under the recordkeeping requirements in 40 CFR 80.1454. The EPA believes this change would allow for more accurate total baseline volumes to be included as part of registration information submitted to the EPA.

Q. Changes to Bond Requirement for Foreign Producers

The EPA is proposing to remove the option that allows a RIN-generating foreign producer to pay the required bond amount to the U.S. Treasury as stipulated under 40 CFR 80.1466(h)(2)(i) instead of obtaining a bond in the proper amount from a third-party surety agent. This option was provided as an alternative approach for RIN-generating foreign producers that expressed possible difficulties in securing the required bond to participate in the RFS program. We are now proposing to remove this option because it has proven to be too much of a challenge for the EPA to implement properly. For instance, a special account would need to be established at the U.S. Treasury that would allow the EPA to deposit the submitted bank checks (or hold in escrow) and also allow the EPA the ability to draw upon these funds to satisfy a potential judgment or reimburse the RIN-generating producer if they no longer participate in the RFS program. This type of accounting requires a lot of oversight and resources to ensure proper implementation. Since there very few RIN-generating foreign producers who are currently using this option, we believe it is not justified to continue to allow this option due to the high administrative burden. For these reasons, we are proposing to remove this option from the regulations and believe this proposal will provide RIN-generating foreign producers with sufficient time to obtain surety agreements to meet the bond requirements. We request comment on this proposed change.

R. Redesignation of Renewable Fuel on a PTD for Non-Qualifying Uses

The EPA is proposing to amend the PTD, RIN management and enforcement-related regulations to address situations where a party subject to PTD requirements is aware that renewable fuel it intends to transfer will be used for purposes other than as transportation fuel, heating oil, or jet fuel.

CAA section 211(o)(1)(J) defines ''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 a ''transportation fuel,'' which is defined in CAA section 211(o)(1)(L) as ''fuel for use in motor vehicles, motor vehicle engines, nonroad vehicles or nonroad engines (except for ocean-going vessels). The CAA also provides, however, that ''additional renewable fuel,'' defined as fuel made from renewable biomass that is used to replace or reduce the quantity of fossil fuel present in home heating oil or jet fuel, may also receive credit under the CAA. Thus, the CAA envisions use of renewable fuels under the RFS program for transportation fuel, heating oil, and jet fuel, which we refer to here as ''qualifying uses.'' While some of the more common biofuels that participate in the RFS program (*e.g.,* denatured ethanol) have no significant non-qualifying uses, other types of biofuels, such as renewable electricity and natural gas derived from biogas, can be put to myriad uses, many of which are non-qualifying. Reflecting this difference, EPA regulations include special provisions for certain renewable fuels (*e.g.,* natural gas derived from biogas) that limit RIN generation to circumstances where the potential RIN generator can document that their biofuel will be used as transportation fuel, heating oil, or jet fuel, whereas such provisions are not required with respect to biofuels like denatured ethanol that do not have significant non-qualifying uses. All renewable fuels, however, must be accompanied by a PTD when ownership of the fuel is transferred to parties other than retail customers or wholesale purchaser-consumer facilities (as defined in 40 CFR 80.2), and the PTD must include a good faith designation of the fuels' intended use.[336] The EPA modified the PTD requirements and related enforcement provisions in the QAP final rule, but in the course of doing so, the EPA included contradictory statements in the preamble of its intent to finalize certain of the proposed provisions, and these statements were inconsistent in part with EPA's final actions in amending the regulations.[337]

The original RFS2 regulations required parties that obtained renewable fuel with attached RINs and that either designated renewable fuel for a non-qualifying fuel use or that used renewable fuel for a non-qualifying fuel use to retire the RINs that they received with the fuel.[338] On February 21, 2013, the EPA published an NPRM for the QAP rule that proposed to remove and reserve 40 CFR 80.1429(f) of the regulations, expand the PTD requirements to require that parties transferring renewable fuel include specific information in PTDs regarding the character and intended use of blended and neat renewable fuel, and add a new 40 CFR 80.1433 that would set forth a specific mechanism for parties with PTD obligations that change a renewable fuel designation from qualifying to non-qualifying fuel uses to retire the appropriate number and type of RINs. In addition, the EPA proposed a new 40 CFR 80.1460(g) to prohibit parties from redesignating renewable fuel for a non-qualifying use without retiring RINs in accordance with proposed 40 CFR 80.1433.[339]

In one section of the preamble to the final QAP Rule, the EPA stated that it was implementing this proposal.[340] However, the preamble to the final QAP rule also included contradictory language that stated, ''we feel that the program goal of ensuring appropriate end use is already addressed and managed through the regulations. We are therefore not finalizing the proposed § 80.1433 and conforming prohibited act provision for sellers and transferors of RIN-generating renewable fuel.'' [341] The regulations implemented in the final QAP rule inadvertently removed 40 CFR 80.1429(f), without including the proposed 40 CFR 80.1433 or 80.1460(g). The PTD regulations that were adopted in the final QAP rule at 40 CFR 80.1453(a)(12) include a reference to 40 CFR 80.1433, but that section was not included in the final regulations.

[336] See 40 CFR 80.1453.

[337] See 79 FR 42078 (July 18, 2014).

[338] See 40 CFR 80.1429(f).

[339] See 78 FR 12193 (February 21, 2013).

[340] See 79 FR 42106 (July 18, 2014).

[341] *Id.*

The EPA recognizes that these contradictory statements have led to confusion, and we are proposing to resolve this confusion by implementing a new 40 CFR 80.1433 that would require a party that receives renewable fuel without a PTD or with a PTD indicating that the fuel is for qualified uses, and that subsequently transfers that fuel to a party that the transferor knows or has reason to know will use the fuel for a non-qualifying use, to include a statement on the PTD designating the fuel for an alternative use and to retire an appropriate number and type of RINs. We are also proposing that the transfer of renewable fuel for use by stationary internal combustion engines would not require RIN retirement. These engines often use the same fuel as nonroad engines, and the effect of renewable fuel in displacing petroleum products in fuel used in such engines is also similar. We are also proposing to add a new prohibited act at 40 CFR 80.1460(j) for failing to retire RINs as would be required by proposed 40 CFR 80.1433. The RIN retirement provisions in proposed 40 CFR 80.1433 would not apply to a party that could demonstrate, through records available at the time of fuel transfer and maintained for five years, that no RINs were generated for any part of the fuel or fuel blend that it transfers or that an appropriate number and type of RINs had already been retired by a prior owner of the fuel or fuel blend. With respect to situations where a party asserts that RINs were never generated, we seek comment on whether the exemption from the RIN retirement requirements in proposed 40 CFR 80.1433 should be limited to those parties that purchased renewable fuel directly from the renewable fuel producer, similar to the requirement specified for exports at 40 CFR 80.1430(a). We believe these proposed provisions, if finalized, will remedy the confusion created by the contradictory statements in the QAP rule, and will further the objectives of the statute by augmenting the integrity of the RIN system.

We are also proposing to delete 40 CFR 80.1460(c)(2) and (c)(3) from the prohibited acts section of the regulations, and replace these sections with a new 40 CFR 80.1460(c)(2). We believe that the existing two near-identically worded provisions would appropriately be replaced by a single more clearly worded regulation that prohibits parties from using RINs for compliance or transferring RINs to other parties, in a situation where the party using or transferring the RINs uses the fuel associated with the RINs for a purpose other than as transportation fuel, heating oil or jet fuel. This prohibition would only apply to parties that obtained renewable fuel with assigned RINs and then used or transferred the renewable fuel for a non-qualifying fuel use; any RINs improperly transferred by such a party would not be considered invalid as a result of that action, and therefore could be used or transferred by downstream parties notwithstanding the upstream violation of 40 CFR 80.1460(c)(2).

IX. Other Revisions to the Fuels Program

A. Testing Revisions

The EPA is proposing several changes to its testing requirements, as described in the following sections.

1. Non-VCSB Absolute Fuel Parameter—Sulfur Testing in Diesel, Gasoline, Butane, and Pentane

The EPA is proposing to remove the requirement for periodic resubmitting of non-VCSB test methods that have not been approved by VCSBs. Non-VCSB test methods are required to resubmit accuracy and precision qualification information every 5 years if the non-VCSB test method has not been approved by a VCSB organization. At this time, VCSBs, such as ASTM, have yet to qualify any non-VCSB test methods for measuring the sulfur content in diesel, gasoline, butane, or pentane. Moreover, the EPA requires minimal statistical quality control requirements on every type test method approved under the diesel sulfur accuracy and precision requirements [342] to ensure proper test method instrumentation use is as intended in practice. The EPA is, therefore, proposing to amend the regulatory requirement that non-VCSB test methods by eliminating the provision to re-submit accuracy and precision qualification information every 5 years.

The EPA is also proposing to require use of ASTM D6708 for determining that sample specific biases are random prior to submission for approval. If a non-VCSB test method absolute fuel parameter of sulfur in diesel, gasoline, butane, or pentane as compared to its designated primary test method were to exhibit sample-specific biases that cannot be determined as random through the utilization of ASTM D6708, such an indication of sample-specific biases would raise a concern that the test method should be investigated and improved upon prior to utilization in practice in order to eliminate any systematic errors that may keep the test method from properly measuring sulfur in either diesel, gasoline, butane, or pentane in the most accurate and precise manner practically achievable. The EPA believes that the non-VCSB test method applicant has to demonstrate through ASTM D6708 that sample-specific biases existing between the candidate non-VCSB test method and the designated primary test method are random prior to submitting to the EPA for approval. If the applicant determines that sample-specific biases exist between the candidate non-VCSB test method and the designated primary test method that cannot be determined to be random through utilization of ASTM D6708, then the non-VCSB test method is automatically disqualified from consideration for approval. The EPA is proposing to an additional requirement that non-VCSB test methods for sulfur in diesel, gasoline, butane, and pentane must demonstrate through the use of ASTM D6708 that sample-specific biases are random. This demonstration must be made prior to submission for approval.

2. Removal of Sunset Date for Designated Primary Test Methods

Currently, EPA fuels regulations exempt those designated primary test methods that were in use prior to October 28, 2013, from meeting the accuracy and precision qualification requirements.[343] We provided this sunset exemption date in the Tier 3 final rule because we were confident that test facilities were utilizing designated primary test methods prior to this date. However, since the SQC requirements at 40 CFR 80.47 are intended to ensure proper utilization of designated primary test methods in practice, the EPA is proposing to remove this sunset exemption date. This action would exempt all designated primary test methods from the accuracy and precision requirements of 40 CFR 80.47.

3. Sulfur in Pentane and Test Methods for Benzene, Aromatics, and C6-Plus Hydrocarbons in Pentane

The EPA is proposing to add accuracy and precision criteria for sulfur in pentane that are identical to sulfur in gasoline. The Tier 3 regulations provided for the allowance of blending pentane in gasoline.[344] The EPA did not specify test methods for sulfur, benzene, aromatics, and C6-plus hydrocarbons in pentane. The EPA is not aware of an ASTM test method that has been

[342] See 40 CFR 80.584.

[343] See 40 CFR 80.47(j).

[344] See 79 FR 23589–23591 (April 28, 2014).

developed to analyze sulfur in pentane. It is our understanding that the ASTM test methods currently utilized by industry for the analysis of sulfur in gasoline may be adaptable for the analysis of sulfur in pentane if refrigerated auto-samplers are added to the apparatus of these test methods. This is being done in order to reduce safety issues associated with analyzing the sulfur content in pentane which has a lower boiling point than gasoline. Regardless of how these test methods are innovated in order to determine the sulfur content of pentane, the EPA believes it is appropriate to assign PBATMA criterion for sulfur in pentane based on the current criterion for sulfur in gasoline. Once industry has developed a test method for sulfur in pentane through the VCS-based process and developed precision statements for the test method, the EPA will revisit whether accuracy and precision criteria need to be revised to reflect the VCSB test methods for sulfur in pentane. The EPA is proposing to add accuracy and precision criterion for sulfur in pentane in 40 CFR 80.47(b) that is identical to sulfur in gasoline. We believe that this will provide greater assurance to both the regulated community and the EPA that once pentane is blended into gasoline, it meets the required sulfur fuel standard.

In addition, the EPA is also proposing to establish two ASTM test methods for the analysis of benzene content, aromatic content, and C6-plus hydrocarbons in pentane at 40 CFR 80.46. We are proposing to designate ASTM D6730 as the designated primary test method for measuring benzene content, aromatic content, and C6-plus hydrocarbons in pentane. We are also proposing one alternative test method for the benzene content, aromatic content, and C6-plus hydrocarbons measurement in pentane, ASTM D6729, provided that its test results are correlated to ASTM D6730. Table IX.A.3–1 below lists the two ASTM test methods we are proposing. The establishment of these two test methods would provide greater assurance to both the regulated community and the EPA that benzene content, aromatic content, and C6-plus hydrocarbons in pentane meet the regulatory requirements at 40 CFR 80.86.

TABLE IX.A.3–1—DESIGNATED PRIMARY AND ALTERNATIVE ASTM ANALYTICAL TEST METHODS FOR THE ANALYSIS OF BENZENE CONTENT, AROMATIC CONTENT, AND C6-PLUS HYDROCARBON CONTENT IN PENTANE

Fuel parameter in pentane	ASTM international analytical test method
Benzene (Designated Primary Test Method)	ASTM 6730–01 (Reapproved 2011), Standard Test Method for Determination of Individual Components in Spark Ignition Fuels by 100-Metre Capillary (Pre-Column) High-Resolution Gas Chromatography.
Benzene (Alternative Test Method)	ASTM D6729–14, Standard Test Method for Determination of Individual Components in Spark Ignition Engine Fuels by 100-Metre Capillary High-Resolution Gas Chromatography.
Aromatics (Designated Primary Test Method) ...	ASTM 6730–01 (Reapproved 2011), Standard Test Method for Determination of Individual Components in Spark Ignition Fuels by 100-Metre Capillary (Pre-Column) High-Resolution Gas Chromatography.
Aromatics (Alternative Test Method)	ASTM D6729–14, Standard Test Method for Determination of Individual Components in Spark Ignition Engine Fuels by 100-Metre Capillary High-Resolution Gas Chromatography.
C6-plus Hydrocarbons (Designated Primary Test Method).	ASTM 6730–01 (Reapproved 2011), Standard Test Method for Determination of Individual Components in Spark Ignition Fuels by 100-Metre Capillary (Pre-Column) High-Resolution Gas Chromatography.
C6-plus Hydrocarbons (Alternative Test Method).	ASTM D6729–14, Standard Test Method for Determination of Individual Components in Spark Ignition Engine Fuels by 100-Metre Capillary High-Resolution Gas Chromatography.

4. Benzene Testing in Gasoline

We are proposing to add ASTM D5769 as a designated primary test method for benzene in gasoline, gas chromatography mass spectrometry (GCMS)-based test method. This would be in addition to the current designated primary gas chromatography (GC)-based test method (ASTM D3606) codified at 40 CFR 80.46(e). Currently, the majority of motor vehicle gasoline in the U.S. contains ethanol. The current GC-based designated primary test method for benzene in gasoline (ASTM D3606) has the potential for interference issues with ethanol in determining the benzene content in gasoline when ethanol is present as an oxygenate in gasoline. This interference issue of ethanol with benzene peaks in ASTM D3606 makes this test method very difficult to use and has significant potential to impact the accuracy of the benzene content test results.[345] At the same time, we note that ASTM D3606 has been the designated primary test method for benzene in motor vehicle gasoline since the inception of the RFG fuel program, and technical procedures exist to account for ethanol interference issues with benzene in gasoline. Moreover, the current precision statements in ASTM D3606 do not account for the presence of alcohols in gasoline.[346] The GCMS-based test method (ASTM D5769) utilizes both gas chromatography to separate chemical compounds in a gasoline sample and then determines the chemical compounds content by mass by utilizing a mass spectrometry detector. From a technical perspective, the EPA believes ASTM D5769 is a more accurate and precise test method for determining the benzene content in motor vehicle gasoline regardless of the type of oxygenate it contains. Thus, interference issues in determining the benzene content in motor vehicle gasoline when alcohols are present does not present a concern with ASTM D5769. ASTM D5769 already contains sample component and internal standard values, calibration requirements, quality control reference material for benzene in motor vehicle gasoline, and precision statements for repeatability and reproducibility have been developed as well.[347] The EPA is not proposing to change the PBATMA requirements for benzene in motor vehicle gasoline that were promulgated in the Tier 3 rule at 40 CFR 80.47. Thus, the regulated community will continue to have the flexibility to utilize ASTM

[345] ASTM D3606 is difficult to utilize with E10, and as ethanol concentrations increase in motor vehicle gasoline (such as E15 or higher), we believe the difficulty in resolving ethanol peaks from benzene peaks in the ASTM D3606 chromatogram will increase, thus further increasing the likelihood of interferences between ethanol and benzene.

[346] See Note 7, ASTM D3606–10, ''Standard Test Method for Determination of Benzene and Toluene in Finished Motor and Aviation Gasoline by Gas Chromatograph.''

[347] ASTM D5769–10, ''Standard Test method for Determination of Benzene, Toluene, and Total Aromatics in Finished Gasolines by Gas Chromatography.''

D3606 for measuring the benzene content in motor vehicle gasoline as well as any other alternative test method that meets the PBATMA requirements for benzene content in motor vehicle gasoline.

As previously explained, we are also proposing removal of the sunset date for designated primary test methods. As a result of this removal, the designated primary test methods for benzene in gasoline would be exempt from accuracy and precision qualification requirements at 40 CFR 80.47.

B. Oxygenate Added Downstream in Tier 3

After the Tier 3 rule was published,[348] we received several questions concerning the language at 40 CFR 80.1603(d) about accounting for downstream oxygenate blending in refiners' and importers' average annual sulfur calculations. Specifically, some refiners asked whether 40 CFR 80.1603(d) is consistent with the related RFG provisions for downstream oxygenate blending in 40 CFR 80.69. Currently, refiners may certify RFG after the addition of oxygenate to the RBOB sample at the refinery lab (creating a so-called ''hand blend''), as allowed in 40 CFR 80.69(a). The Tier 3 regulations at 40 CFR 80.1603(d) require that refiners and importers account for downstream oxygenate blending to any gasoline or BOB by volume weighting the sulfur content of the gasoline or BOB with the sulfur content of the added oxygenate. Under the Tier 3 regulations, refiners and importers may either rely upon test results of batches of oxygenate supplied by the producer of the oxygenate or use an assumed value of 5.00 ppm added at 10 volume percent ethanol concentration if actual sulfur results are not available. These refiners and importers suggested that the regulatory language at 40 CFR 80.1603(d) may be interpreted to continue to allow the use of hand-blended RBOB samples for determining oxygenate sulfur content added downstream by arguing that the language at 40 CFR 80.1603(d) only applied to conventional gasoline and CBOB.

The EPA intended for the downstream oxygenate blending regulations at 40 CFR 80.1603(d) to apply to all gasoline and BOBs, not just conventional gasoline and CBOB. In the preamble to the Tier 3 rule, the EPA explained that the ''final rule requires that in determining their compliance with today's sulfur standards, refiners and importers must either use the actual sulfur content of the DFE established through testing of the DFE actually blended or assume a 5 ppm sulfur content for the DFE added downstream. To prevent potential bias, a refiner or importer must choose to use only one method during each annual compliance period.'' [349] The regulations at 40 CFR 80.101(d)(4) sets forth the criteria that a refiner must meet to include downstream ethanol in their conventional gasoline compliance calculations, and 40 CFR 80.69 sets forth the criteria a refiner must meet to include downstream ethanol in their RFG or RBOB compliance calculations. If a refiner satisfies these criteria, 40 CFR 80.1603(d) sets forth the mechanism for accounting for downstream ethanol in annual compliance calculations for all gasoline and BOBs. This section of the regulations was designed to ensure that all refiners calculate their annual average sulfur levels by including the ethanol that is actually added to their gasoline or BOBs, or the default value of 5 ppm. This prevents refiners from using hand blends prepared with ethanol that has less sulfur than is actually blended with the refiner's gasoline or BOB for their compliance calculations.

Although the EPA believes that 40 CFR 80.1603(d) clearly applies to all gasoline and BOBs, not just RFG or RBOB, we are proposing minor amendments to assure that the regulated community will not misinterpret these requirements. We are also proposing minor amendments to the Tier 3 sulfur reporting requirements at 40 CFR 80.1652 to better accommodate the inclusion of downstream oxygenate blending in annual average sulfur compliance demonstrations. These added requirements would help align the reported batch information with the annual average compliance report and is necessary to ensure that refiners met both the per-gallon and annual average sulfur standards. We also seek comment on whether we should adopt similar provisions for the gasoline benzene program.

C. Technical Corrections and Clarifications

We are proposing numerous technical corrections to the EPA's fuels programs. These amendments are being proposed to correct inaccuracies and oversights in the current regulations. These proposed changes are described in Table IX.C–1 below. We request comment on all of these proposed changes.

TABLE IX.C–1—MISCELLANEOUS TECHNICAL CORRECTIONS AND CLARIFICATIONS TO TITLE 40

Part and section of Title 40	Description of revision
79.51(f)(6)(iii), 79.59(a)(1), 80.27(e)(1)(i), 80.69(a)(11)(viii)(C), 80.93(d)(4), 80.174(b), 80.174(c), 80.235(b), 80.290(b), 80.533(b), 80.574(b)(1), 80.595(b), 80.607(a), 80.855(c)(2), 80.1285(b), 80.1340(b), 80.1415(c)(4), 80.1441(h), 80.1442(i), 80.1443(d)(2), 80.1449(d), 80.1454(h)(6)(iii), 80.1502(b)(5)(i), 80.1502(b)(5)(ii), 80.1622(g), 80.1625(c)(2), and 80.1656(h).	Amended by redirecting the mailing addresses to the new address section in 80.10.
80.9	Amended by updating the incorporation by reference (IBR) to the most recent ASTM version for ''Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications,'' ASTM E29–02, which is now ASTM E29–13. ASTM E29–13 assists our regulated entities in determining the number of significant digits when rounding a test result or measurement for determining conformance with our fuel standards.
80.10	Amended by adding a new address section that reflects the address change.
80.27(b)	Amended by clarifying the PBATMA implementation for RVP compliance assurance measurements.

[348] See 79 FR 23414 (April 28, 2014).

[349] See 79 FR 23544 (April 28, 2014).

TABLE IX.C–1—MISCELLANEOUS TECHNICAL CORRECTIONS AND CLARIFICATIONS TO TITLE 40—Continued

Part and section of Title 40	Description of revision
80.46	Amended by clarifying that the PBATMA requirements in 80.47 are now effective, removing the VCSB alternative analytical test methods from 80.46, as the VCSB analytical test methods in 80.46 must now meet the requirements in 80.47, and adding test methods and corresponding IBRs for benzene, aromatics, and C6-plus hydrocarbons in pentane.
80.47(b)(2), 80.47(c)(2), 80.47(d)(2), 80.47(e)(2), 80.47(f)(2), 80.47(g)(2), 80.47(h)(2), 80.47(i)(2), 80.47(j)(2), and 80.47(l)(4).	Amended by removing the reference to the October 28, 2013, date and making the designated primary test methods exempt from the applicable accuracy and precision requirements of 40 CFR 80.47, given that there are SQC requirements for these methods that will verify if they are being carried out properly.
80.47(b)(2)(i) and 80.47(b)(2)(ii)	Amended by clarifying accuracy criterion for sulfur in gasoline by adding examples with accuracy criterion.
80.47(c)(2)(i) and 80.47(c)(2)(ii)	Amended by clarifying accuracy criterion for sulfur in butane by adding examples with accuracy criterion.
80.47(l)(2)(i)	Amended by clarifying that test facilities meet applicable precision requirements for VCSB method defined and non-VCSB absolute fuel parameters.
80.47(n)(1)(i), 80.47(o)(1)(i), 80.47(p)(1)(i), and 80.47(p)(2)(i).	Removing the accuracy SQC requirement for pre-treatment and assessment of results from the check standard testing after at least 15 testing occasions as described in section 8.2 of ASTM D6299.
80.47(n)(1)(ii), 80.47(o)(1)(ii), and 80.47(p)(1)(ii)	Clarifying the expanded uncertainty of the accepted reference value of consensus named fuels shall be included in the accuracy SQC qualification criterion.
80.47(o)(1)(i)	Clarifying participation in a commercially available Inter Laboratory Crosscheck Program (ILCP) at least three times a year meeting the ASTM D6299 requirements for ILCP check standards that meet the requirements for absolute differences between test results and the accepted reference value of the check standard based on the designated primary test method obtained through participation in the ILCP satisfies the accuracy SQC requirement as well as appropriate calculation for adherence to SQC criteria. Also clarifying the accuracy SQC criteria is 0.75 times the published reproducibility of the applicable designated primary test method for each method defined fuel parameter to be consistent with non-VCSB method defined fuel parameter accuracy SQC requirements.
80.47(n)(2)(i), 80.47(o)(2)(i), and 80.47(p)(3)(i)	Clarification in Precision SQC requirements that the test facility's long term precision standard deviation, as demonstrated by control charts, is expected to meet applicable precision criterion for the test method.
80.164(a)(5) and 80.177(d)(1)(ii)	Amended by updating the IBR to the most recent ASTM version for ''Standard Specification for Automotive Spark-Ignition Engine Fuel,'' ASTM D4814–95c and ASTM D4814–13b, which is now ASTM D4814–14b. ASTM D4814–14b is gasoline specifications used in making certification fuel for meeting gasoline detergent requirements.
80.177(d)(1)(i)	Amended by updating the IBR to the most recent ASTM version for ''Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel,'' ASTM D4806–13a, which is now ASTM–4806–15 ethanol specification. ASTM D4806–15 is ethanol specifications used in making certification fuel for meeting gasoline detergent requirements.
80.1240(a)(1)(i) and 80.1603(f)	Amended by clarifying that gasoline benzene and sulfur credits must be used for compliance purposes (i.e., retired) instead of simply being obtained.
80.1401	Adding definition of affiliate, foreign renewable fuel producer, RIN-generating foreign producer, and non-RIN-generating foreign producer; amended by revising the definition of foreign ethanol producer and renewable fuel.
80.1426(a)(2), 80.1426(c)(4)–(5), 80.1450(b), 80.1451(b), 80.1451(g)(1)(ii)(D), 80.1451(i)(2)(x), 80.1454(p), and 80.1466(b)–(p).	Amended by applying the new and revised definitions in 80.1401.
80.1440	Amended by adding a new paragraph related to RIN responsibilities for renewable fuel used for purposes subject to national security exemptions.
80.1450(b)(1)(ix)(A), 80.1451(b)(1)(ii)(I), 80.1451(g)(1)(ii)(I), 80.1452(b)(11), and 80.1464(b)(1)(ii).	Amended by clarifying the term ''denaturant'' to mean ''ethanol denaturant.''
80.1450(g)(9)	Amended by clarifying the third-party auditor registration updates language to make QAP updates consistent with registration updates.
80.1466(d)(3)(ii)	Amended erroneous reference for third-party independence requirements from 80.65(e)(2)(iii) to 80.65(f)(2)(iii).
80.1468(b)(1)	Amended by updating the IBR to the most recent ASTM version for ''Standard Guide for Use of the Petroleum Measurement Tables,'' ASTM D1250–08, which is now ASTM D1250–08 (2013). ASTM D1250–08 (2013) is a standard guide used by our regulated community for determining temperature corrected standardized volumes under the renewable fuels program.
80.1468(b)(3)	Amended by updating the IBR to the most recent ASTM version for ''Standard Test Method for Laboratory Standardization and Calibration of Hand-Held Moisture Meters,'' ASTM D4444–08, which is now ASTM D4444–13. ASTM D4444–13 is a test method used for determining moisture content of wood samples in that must be met when qualifying for RINs for renewable fuels.

TABLE IX.C–1—MISCELLANEOUS TECHNICAL CORRECTIONS AND CLARIFICATIONS TO TITLE 40—Continued

Part and section of Title 40	Description of revision
80.1468(b)(4)	Amended by updating the IBR to the most recent ASTM version for ''Standard Specification for Biodiesel Blend Stock (B100) for Middle Distillate Fuels,'' ASTM D6751–09, which is now ASTM D6751–15. ASTM D6751–15 is biodiesel fuel specifications that must be met qualifying for RINs for renewable fuels.
80.1468(b)(7)	Amended by updating the IBR to the most recent ASTM version for ''Standard Test Method for Analysis of Wood Fuels,'' ASTM E870–82, which is now ASTM E870–82 (2013). ASTM E870–82 (2013) is a test method that covers the proximate and ultimate analysis of wood fuels and the determination of the gross caloric value of wood sampled and prepared by prescribed test methods and analyzed according to ASTM established procedures that must be met when qualifying for RINs for renewable fuels.
80.1468(b)(8)	Amended by updating the IBR to the most recent ASTM version for ''Standard Specification for Diesel Fuel Oils,'' ASTM D975–13a, which is now ASTM D975–15. ASTM D975–15 is diesel fuel specifications that must be met qualifying for RINs for renewable fuels.
80.1469(e)(3)	Amended by clarifying that quality assurance plans submitted as part of annual registration renewal are approved at the same time as a third-party auditor's registration.
80.1469(f)(1)	Amended to more clearly link updates to quality assurance plans with updates to a third-party auditor's registration under 80.1450(g)(9).
80.1501(b)(3)(i)	Amended to reflect that the word ''ATTENTION'' should be in black font, not orange.
80.1503	Amended by revising the section to clarify that the absolute approach shall be used in determining compliance assurance with respect to ethanol content.
80.1600	Amended by removing the duplicative definition of ''Ethanol denaturant,'' which is already defined in 80.2(iiii).
80.1609(a)	Amended by revising cross-reference to 80.1603(d)(3).
80.1616(c)(3)	Amended by clarifying that Tier 2 credits generated from January 1, 2017 through December 31, 2019, must be used between January 1, 2017 and December 31, 2019.
80.1650(b)(3)	Amended by clarifying that the oxygenate blender registration dates also apply to persons who blend oxygenate into CBOB and conventional gasoline.
80.1650(e)(1)(iii)(A) and 80.1650(g)(1)(iii)(A)	Amended by clarifying that records are kept at the oxygenate production ''facility'' (instead of the oxygenate production ''refinery'').

X. Economic Impacts

The proposed provisions for biointermediates and the proposed provisions for EFF and gasoline produced at blender pumps would have economic impacts. The proposal would provide significant additional regulatory flexibility, streamlined compliance provisions, and the opportunity for increased biofuel production at reduced cost. The cost savings are anticipated to far outweigh the minor costs imposed for demonstrating compliance. In most cases, the associated costs would only apply to those parties that elect to take advantage of the proposed flexibilities because the potential economic benefits outweigh the costs. This proposal contains minor additional registration, reporting, and recordkeeping requirements that would apply to some parties in the biofuel production and distribution system that do not take advantage of the proposed flexibilities as well as those that do. We are also seeking comment in this action on potential provisions for generating RINs from renewable electricity and seek comment on what economic impacts they may have.

A. What are the benefits?

1. Proposed Biointermediates Provisions and Other Fuels Program Revisions

Under the current RFS regulations, the production of renewable biofuels from feedstocks listed in approved pathways must all take place at the same facility. Numerous companies have approached the EPA about the use of biointermediates to produce renewable fuels as part of the RFS program. Many of the biointermediates produced by these companies would be used by renewable fuel producers to generate cellulosic and other advanced renewable fuels. This proposal would allow for the production of renewable fuel from biointermediates by amending the RFS regulations to allow the new flexibility. By allowing producers to use biointermediates to produce renewable fuels, the EPA is enabling the production of potentially significant future volumes of cellulosic and other advanced biofuels at reduced cost.

2. Proposed Provisions for EFF and Producing Gasoline at Blender Pumps

Without the regulatory flexibilities in this proposed rule, the expansion of blender pumps and use of natural gasoline as an EFF blendstock could not be accommodated while at the same time continuing to ensure the control of emissions from FFVs. We anticipate that the flexibility to use natural gasoline of appropriate quality to produce EFF provided by this proposal could reduce the EFF production cost. For example, we project that the use of natural gasoline to produce E70 in place of gasoline might reduce the cost of E70 by 5 percent on an energy adjusted basis.[350] This could help to further the use of increased volumes of renewable fuels under the RFS program. The increased use of natural gasoline in motor fuels could also have energy security benefits, providing another domestic outlet for this feedstock currently in oversupply.

Our proposal to regulate E16–50 quality with other higher-level ethanol blends that can only be used in FFVs rather than to continue to treat E16–50 as gasoline would provide a practical and streamlined means for blender pump-refiners to demonstrate compliance while continuing to ensure the environmental quality to these blends. Our proposal to allow gasoline to be made at blender pumps from September 16 through May 31 without triggering the full gasoline refiner requirements would likewise provide a practical and streamlined means for blender pump-refiners to demonstrate

[350] See the memorandum, ''Potential Impact on the Cost of Ethanol Flex Fuel from the Use of Natural Gasoline as a Blendstock,'' available in the docket for this action.

compliance while ensuring the environmental quality of the gasoline they produce.[351] Without these proposed changes, it may be impractical for blender pump-refiners to produce E16–50 or E15 while meeting the existing EPA compliance demonstration requirements.[352]

3. Other Proposed RFS and Fuels Program Revisions

The proposed revisions discussed in sections V, VI, VIII, and IX of this preamble would all help support the RFS and other fuels programs by doing such things as creating new renewable fuel production pathways, clarifying various provisions of the RFS program, and providing numerous technical corrections.

B. What are the cost impacts?

1. Proposed Biointermediates Provisions and Other Fuels Program Revisions

The ability to produce renewable fuels and generate RINs for them using biointermediates holds significant promise for reducing the costs of producing cellulosic and other advanced biofuels. By concentrating renewable fuel feedstocks prior to shipment to the renewable fuel production facility and/or by taking advantage of existing infrastructure, producers can significantly reduce their production costs. At the same time, allowing the use of biointermediates will require some additional minor compliance costs. The proposed provisions for production of renewable fuel from biointermediates include new registration, reporting, recordkeeping, and PTD requirements for biointermediate producers. There would also be additional recordkeeping and reporting requirements for renewable fuel producers that use biointermediates. These requirements are typical of other EPA fuel programs, and the associated costs are modest. As this is a new flexibility that is not currently available to producers in the RFS program, the EPA does not believe that a renewable fuel producer would choose to take advantage of this program unless there was sufficient economic incentive for the producer to do so. Current renewable fuel producers would not be compelled to use biointermediates, and as such, any costs associated with these provisions are purely voluntary.

2. Proposed EFF Provisions

Overall, we anticipate only a cost savings regarding the cost to produce EFF blends and demonstrate compliance with the EPA fuel quality requirements. This proposal would provide additional flexibility regarding the hydrocarbon blendstocks that could be used to produce EFF. These new flexibilities would apply to all EFF blends. Currently, the only hydrocarbon blendstocks that producers of E85 may use to be assured of compliance with the sub-sim requirement for E85 are certified gasoline and BOBs. Under the proposed EFF bulk blender-refiner provisions, certified natural gasoline EFF blendstock could also be used to produce EFF. The EFF bulk blender-refiner certification option includes streamlined compliance demonstration requirements to limit the testing that would be required when such certified blendstocks are used. We anticipate that the ability to use certified natural gasoline EFF blendstock would be welcomed by EFF bulk blender-refiners due to the anticipated lower cost compared to the use of gasoline or BOBs.[353] Under the proposed EFF full-refiner and importer provisions, uncertified natural gasoline EFF blendstock could be used to produce EFF provided that each batch is tested to demonstrate compliance. The ability to blend other uncertified natural gasoline EFF blendstock would also provide additional flexibility that may prove useful to producers of EFF. Taking advantage of the proposed blending flexibility to produce EFF would be voluntary. EFF producers that continue to use only gasoline and BOBs that do not take advantage of the 1 psi waiver for E10 as hydrocarbon blendstocks would not be affected by the new regulatory requirements associated with the proposed blending flexibility. EFF bulk blender-refiners that use gasoline and BOBs that take advantage of the 1 psi waiver would have a minimal additional burden to demonstrate compliance with the proposed EFF RVP requirements. Such EFF bulk blender-refiners could use a calculative RVP compliance tool that uses common business records to demonstrate compliance with the proposed EFF RVP requirements.[354] EFF producers would only choose to be subject to the new regulatory requirements associated with the use of natural gasoline as an EFF blendstock to the extent that the economic benefits of the proposed blending flexibility outweighs the associated costs.

This proposal would also provide streamlined provisions for EFF blender pump-refiners to demonstrate that the blends they produce are in compliance with EPA fuel quality requirements. Under the current regulations, E16–50 blends are treated as gasoline. Consequently, blender pump-refiners are currently subject to all of the requirements of a gasoline refiner, including per-batch testing, registration, and annual reporting. Under this proposal, E16–50 would no longer be treated as gasoline, and would instead be subject to new fuel quality requirements that apply to all EFF (E16–83). This would allow EFF blender pump-refiners to demonstrate compliance with the proposed fuel quality requirements for the EFF they produce by maintaining PTDs for the parent blends they use to make EFF and participating in an EFF quality survey.

Under the current regulations, the production of the E10 or E15 gasoline blends at blender pumps also subjects blender pump-refiners to all of the gasoline refiner requirements. This proposal would provide a streamlined means for producers of gasoline at blender pumps to demonstrate compliance with these gasoline refiner requirements by keeping the PTDs from the parent blends that were used. The proposed provisions for producers of EFF and gasoline at blender pumps are consistent with the common business practices and commensurate with the ability of blender pump-refiners to affect the quality of the EFF and gasoline (E15 and E10) they produce. Hence, we expect that these proposed provisions would substantially reduce the cost of compliance for blender pump-refiners.

The proposed provisions for EFF include new registration, reporting, recordkeeping, PTD, and fuel survey requirements for EFF full-refiners and bulk blender-refiners as well as recordkeeping requirements for distributors and retailers of EFF and manufacturers of additives for use in EFF. To support the proposed provisions to allow the use of certified natural gasoline EFF blendstock, this proposal also includes registration, batch testing, reporting, recordkeeping, and PTD requirements for natural gasoline EFF blendstock refiners and

[351] We are also requesting comment on how to streamline the compliance demonstration requirements for blender pump operators who produce gasoline from June 1 through September 15 (see section IV.E of this preamble).

[352] For example, the existing regulations would require that each batch of fuel produced at a blender pump (*i.e.,* each delivery to a vehicle) be sampled and tested to demonstrated compliance.

[353] See the memorandum, ''Potential Impact on the Cost of Ethanol Flex Fuel from the Use of Natural Gasoline as a Blendstock,'' available in the docket for this action.

[354] The RVP compliance tool employs information on the RVP of the blendstocks used to make EFF that is available on PTDs and EFF blending records. See section IV.F.3 of this proposal for a discussion of the RVP compliance tool.

importers. The proposed requirements are consistent with other EPA fuel programs, and the associated costs are modest and necessary to support EPA compliance oversight.[355] The use of natural gasoline as an EFF blendstock would represent a new market opportunity to natural gasoline producers. We anticipate that there would be sufficient economic incentive to producers of natural gasoline to overcome the burden of entry into this new outlet for their natural gasoline product. However, natural gasoline producers would not be compelled to do so and could choose to continue to use existing market outlets for their product.

3. Other Proposed RFS and Fuels Program Revisions

The EPA does not anticipate that there would be any significant costs associated with the proposed revisions to the RFS and other fuels programs discussed in sections V, VI, VIII, and IX of this preamble.

XI. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is a significant regulatory action that was submitted to the Office of Management and Budget (OMB) for review because it raises novel legal or policy issues. Any changes made in response to OMB recommendations have been documented in the docket.

B. Paperwork Reduction Act (PRA)

The information collection activities in this proposed rule have been submitted for approval to OMB under the PRA. The Information Collection Request (ICR) document that the EPA prepared has been assigned EPA ICR numbers 2545.01 (for the proposed biointermediates provisions) and 2544.01 (for the proposed EFF provisions). You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here.

The information to be collected for the proposed biointermediate provisions are based on the proposed registration, recordkeeping, reporting, and PTD requirements in 40 CFR part 80, subpart M, which would be mandatory for biointermediate producers and renewable fuel producers that use a biointermediate. The proposed recordkeeping, reporting, and PTD requirements require only the specific information needed to determine compliance. All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to the EPA policies set forth in 40 CFR part 2, subpart B.

Respondents/affected entities: Biointermediate producers and renewable fuel producers.

Respondent's obligation to respond: Mandatory. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414).

Estimated number of respondents: 45.

Frequency of response: Annually, quarterly.

Total estimated burden: 100,532 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: $4,030,939 (per year).

The information to be collected for the proposed EFF provisions are based on the proposed registration, recordkeeping, reporting, and PTD requirements in 40 CFR part 80, subpart N, which would be mandatory for producers of EFF and natural gasoline EFF blendstock. The proposed recordkeeping, reporting, and PTD requirements require only the specific information needed to determine compliance. All information submitted to the EPA pursuant to the recordkeeping and reporting requirements for which a claim of confidentiality is made is safeguarded according to the EPA policies set forth in 40 CFR part 2, subpart B.

Respondents/affected entities: EFF refiners and importers, natural gasoline EFF blendstock refiners and importers, independent surveyors, and independent auditors.

Respondent's obligation to respond: Mandatory. These recordkeeping and reporting requirements are specifically authorized by section 114 of the CAA (42 U.S.C. 7414).

Estimated number of respondents: 1,850.

Frequency of response: Annually.

Total estimated burden: 44,826 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: $4,577,031 (per year).

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 the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

Submit your comments on the EPA's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the EPA using the docket identified at the beginning of this rule. You may also send your ICR-related comments to OMB's Office of Information and Regulatory Affairs via email to *oria_submissions@omb.eop.gov*, Attention: Desk Officer for the EPA. Since OMB is required to make a decision concerning the ICR between 30 and 60 days after receipt, OMB must receive comments no later than December 16, 2016. The EPA will respond to any ICR-related comments in the final rule.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden, or otherwise has a positive economic effect on the small entities subject to the rule. The small entities directly regulated by this proposed rule are primarily EFF refiners, biointermediate producers, and renewable fuel producers. To the extent small EFF refiners take advantage of the flexibilities provided by this action, it will only result in a cost savings. The requisite compliance requirements that go along with the proposed flexibilities will impose only minor costs in comparison to the savings; otherwise parties would not take advantage of the flexibility offered. Similarly, we do not believe that a small biointermediate producer or renewable fuel producer would choose to take advantage of the proposed program for biointermediates unless there was sufficient economic incentive for them to do so. Current small renewable fuel producers would not be compelled to use biointermediates, and as such, any costs associated with these provisions are purely voluntary. We do not anticipate that there will be any significant costs associated with the other proposed revisions to the RFS and other fuels programs. We have therefore concluded that this action will have no net regulatory burden for all directly regulated small entities.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does

[355] These costs are discussed in the ICR associated with this rule, as summarized in section XI.B of this preamble.

not significantly or uniquely affect small governments. The action implements mandates specifically and explicitly set forth in CAA section 211(o) without the exercise of any policy discretion by the EPA. The action imposes no enforceable duty on any state, local, or tribal governments.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. This proposed rule will be implemented at the Federal level and affects transportation fuel refiners, blenders, marketers, distributors, importers, exporters, and renewable fuel producers and importers. Tribal governments would be affected only to the extent they produce, purchase, and use regulated fuels. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it implements specific standards established by Congress in statutes (CAA section 211(o)).

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not a ''significant energy action'' because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. This action provides a new/expanded market opportunity for natural gasoline, allows renewable fuel suppliers to take advantage of biointermediate feedstocks that might make fuel production more economical, and proposes various other revisions to the RFS program. There are no additional costs for sources in the energy supply, distribution, or use sectors.

I. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR Part 51

This action involves technical standards. The EPA proposes to update a number of regulations that already contain voluntary consensus standards, practices, and specifications to more recent versions of these standards, and to propose the use of VCS for motor vehicle gasoline, EFF, natural gasoline EFF blendstock, butane, and pentane. In accordance with the requirements of 1 CFR 51.5, the EPA is proposing to incorporate by reference the use of ASTM test methods listed below in Table XI.I–1. A detailed discussion of these test methods can be found in sections IV.F.2, IX.A, and IX.C of this preamble. The standards may be obtained through the ASTM Web site (*www.astm.org*) or by calling ASTM at (610) 832–9585.

This proposed rulemaking also involves environmental monitoring or measurement. Consistent with the EPA's PBMS approach, in this proposal we have decided to seek comment on to allow the use of any method that meets prescribed performance criteria for sulfur in pentane, as well as sulfur, benzene, aromatic content, distillation, RVP, and oxygenate content in EFF and natural gasoline EFF blendstock. The PBMS approach is intended to be more flexible and cost effective for the regulated community; it is also intended to encourage innovation in analytical technology and improved data quality. The EPA is proposing not to preclude the use of any one method, whether it constitutes a VCS or not, as long as it meets the performance criteria specified in this proposal.

TABLE XI.I–1—DESIGNATED ANALYTICAL TEST METHODS AND SPECIFICATIONS FOR GASOLINE, DENATURED FUEL ETHANOL FOR USE WITH GASOLINE, DIESEL, BIODIESEL, PENTANE, ETHANOL FLEX FUEL, AND NATURAL GASOLINE ETHANOL FLEX FUEL BLENDSTOCK

Fuel parameter or specification	Designated analytical method or specification
Manual sampling	ASTM D4057–12.
Automated sampling	ASTM D4177–95 (Reapproved 2010).
Sample compositing	ASTM D5854.
Standard Practice for Sampling and Handling of Fuels for Volatility Measurement	ASTM D5842–07.
Sulfur in EFF and Natural Gasoline EFF Blendstock	ASTM D2622–10.
Sulfur in EFF and Natural Gasoline EFF Blendstock	ASTM D1266–13.
Sulfur in EFF and Natural Gasoline EFF Blendstock	ASTM D3120–08 (Reapproved 2014).
Sulfur in EFF and Natural Gasoline EFF Blendstock	ASTM D5453–12.
Sulfur in EFF and Natural Gasoline EFF Blendstock	ASTM D6920–13.
Sulfur in EFF and Natural Gasoline EFF Blendstock	ASTM D7220–12.
Sulfur in EFF and Natural Gasoline EFF Blendstock	ASTM D7039–13.
Benzene in EFF and Natural Gasoline EFF Blendstock	ASTM D5769–10.
Benzene in EFF and Natural Gasoline EFF Blendstock	ASTM D5580–13.
Benzene in EFF and Natural Gasoline EFF Blendstock	ASTM D3606–10.
Benzene in EFF and Natural Gasoline EFF Blendstock	ASTM D6730–01 (Reapproved 2010).
RVP in EFF and Natural Gasoline EFF Blendstock	ASTM D5191–13.
RVP in EFF and Natural Gasoline EFF Blendstock	ASTM D5842–14.
RVP in EFF and Natural Gasoline EFF Blendstock	ASTM D6378–10.
Distillation in Natural Gasoline EFF Blendstock	ASTM D86–12.
Oxygenate Content in EFF and Natural Gasoline EFF Blendstock	ASTM D5599–00 (Reapproved 2010).
Oxygenate Content in EFF and Natural Gasoline EFF Blendstock	ASTM D4815–15a.
Benzene in Motor Vehicle Gasoline	ASTM D5769–10.
Aromatics in Pentane	ASTM D6730–01 (Reapproved 2011).
Aromatics in Pentane	ASTM D6729–14.

TABLE XI.I–1—DESIGNATED ANALYTICAL TEST METHODS AND SPECIFICATIONS FOR GASOLINE, DENATURED FUEL ETHANOL FOR USE WITH GASOLINE, DIESEL, BIODIESEL, PENTANE, ETHANOL FLEX FUEL, AND NATURAL GASOLINE ETHANOL FLEX FUEL BLENDSTOCK—Continued

Fuel parameter or specification	Designated analytical method or specification
Benzene in Pentane	ASTM D6730–01 (Reapproved 2011).
Benzene in Pentane	ASTM D6729–14.
C6 plus hydrocarbons in Pentane	ASTM D6730–01 (Reapproved 2011).
C6 plus hydrocarbons in Pentane	ASTM D6729–14.
Standard Guide for Use of Petroleum Measurement Tables	ASTM D1250–08 (2013).
Standard Test Method for Laboratory Standardization and Calibration of Hand-Held Moisture Mixtures.	ASTM D4444–13.
Standard Test Method for the Analysis of Wood Fuels	ASTM E870–82 (2013).
Standard Specification for Biodiesel Blendstock (B100) for Middle Distillate Fuels	ASTM D6751–15.
Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications.	ASTM E29–13.
Standard Specification for Diesel Fuel Oils	ASTM D975–15.
Standard Specification for Gasoline	ASTM D4814–14b.
Standard Specification for Denatured Fuel Ethanol for use with gasoline	ASTM D4806–15.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations, and Low-Income Populations

The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income, or indigenous populations. This proposed rule does not affect the level of protection provided to human health or the environment by applicable air quality standards. This action does not relax the control measures on sources regulated by the fuel programs and RFS regulations and therefore will not cause emissions increases from these sources.

List of Subjects in 40 CFR Part 79

Fuel additives, Gasoline, Motor vehicle pollution, Penalties, Reporting and recordkeeping requirements.

List of Subjects in 40 CFR Part 80

Fuel additives, Gasoline, Imports, Incorporation by reference, Labeling, Motor vehicle pollution, Penalties, Reporting and recordkeeping requirements.

Dated: October 3, 2016.

Gina McCarthy,

Administrator.

For the reasons set forth in the preamble, the EPA proposes to amend 40 CFR parts 79 and 80 as follows:

PART 79—REGISTRATION OF FUEL AND FUEL ADDITIVES

■ 1. The authority citation for part 79 continues to read as follows:

Authority: 42 U.S.C. 7414, 7524, 7545 and 7601.

Subpart D—Designation of Fuels and Additives

■ 2. Section 79.32 is amended by revising paragraph (a)(3) to read as follows:

§ 79.32 Motor vehicle gasoline.

(a) * * *

(3) Motor vehicle gasoline, leaded, non-premium—motor vehicle gasoline that contains more than 0.05 gram of lead per gallon but is not sold as ''premium.'' The Act defines the term ''motor vehicle'' to mean any self-propelled vehicle designed for transporting persons or property on a street or highway. For purposes of this registration, however, gasoline specifically blended and marketed for motorcycles, flexible fuel vehicles as defined in 40 CFR 86.1803–01, or flexible fuel engines as defined in 40 CFR 1054.801, is excluded.

* * * * *

Subpart F—Testing Requirements for Registration

■ 3. Section 79.51 is amended by revising the last sentence of paragraph (f)(6)(iii) to read as follows:

§ 79.51 General requirements and provisions.

* * * * *

(f) * * *

(6) * * *

(iii) * * * The registrants' communications should be sent to the following address: Attn: Fuel/Additives Registration, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Mail Code 6405A, Washington, DC 20460.

* * * * *

■ 4. Section 79.59 is amended by revising the last sentence of paragraph (a)(1) introductory text to read as follows:

§ 79.59 Reporting requirements.

(a) * * *

(1) * * * Forms for submitting this data may be obtained from EPA at the following address: Attn: Fuel/Additives Registration, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Mail Code 6405A, Washington, DC 20460.

* * * * *

PART 80—REGULATION OF FUEL AND FUEL ADDITIVES

■ 5. The authority citation for part 80 continues to read as follows:

Authority: 42 U.S.C. 7414, 7521, 7542, 7545, and 7601(a).

Subpart A—General Provisions

■ 6. Section 80.2 is amended by:

■ a. Revising paragraphs (h) and (l);

■ b. Adding paragraphs (p) and (q);

■ c. Revising paragraphs (r) and (t);

■ d. Adding paragraph (aa); and

■ e. Revising paragraphs (vvv) and (aaaa).

The revisions and additions read as follows:

§ 80.2 Definitions.

* * * * *

(h) *Refinery* means any facility, including but not limited to, a plant, tanker truck, or vessel where gasoline, diesel fuel, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock is produced, including any facility at which blendstocks are combined to produce gasoline, diesel fuel, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock, or at which blendstock is added to gasoline, diesel fuel, ethanol

flex fuel, or natural gasoline ethanol flex fuel blendstock.

* * * * *

(l) *Distributor* means any person who transports or stores or causes the transportation or storage of gasoline, diesel fuel, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock at any point between any gasoline, diesel fuel, ethanol flex fuel, or natural gasoline ethanol flex fuel refinery or importer's facility and any retail outlet or wholesale purchaser-consumer's facility.

* * * * *

(p) *Blendstock for oxygenate blending* or *BOB* means gasoline blendstock (RBOB, CBOB, or GTAB) that could become finished gasoline solely upon the addition of an oxygenate.

(q) *Ethanol Flex Fuel* or *EFF* means a fuel that is not gasoline, has an ethanol content greater than that covered under a waiver obtained from the Administrator pursuant to the requirements of Clear Air Act section 211(f)(4), contains no more than 83 volume percent ethanol, and is used, intended for use, or made available for use in flex-fuel vehicles or flex-fuel engines.

(r) *Importer* means a person who imports gasoline, gasoline blending stocks or components, diesel fuel, ethanol flex fuel, or natural gasoline ethanol fuel blendstock from a foreign country into the United States (including the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands).

* * * * *

(t) *Carrier* means any distributor who transports or stores or causes the transportation or storage of gasoline, diesel fuel, BOB, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock without taking title to or otherwise having any ownership of the gasoline, diesel fuel, BOB, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock and without altering either the quality or quantity of the gasoline, diesel fuel, BOB, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock.

* * * * *

(aa) *Natural gasoline ethanol flex fuel blendstock* means a mixture of hydrocarbons composed mostly of pentanes that is separated either from natural gas at a natural gas processing plant or from crude oil at a petroleum refinery, and that is blended into, intended to be blended into, or offered to be blended into ethanol flex fuel.

* * * * *

(vvv) *Denatured Fuel Ethanol* or *DFE* means an alcohol of the chemical formula C_2H_6O that contains an ethanol denaturant to make it unfit for human consumption, is used or is intended for use to produce gasoline or ethanol flex fuel, and meets the requirements of § 80.1610.

* * * * *

(aaaa) *Conventional gasoline blendstock for oxygenate blending* or *CBOB* means gasoline blendstock that could become conventional gasoline solely upon the addition of oxygenate.

* * * * *

■ 7. Section 80.8 is amended by revising the section heading and introductory text to read as follows:

§ 80.8 Sampling methods for gasoline, diesel fuel, fuel additives, ethanol flex fuel, natural gasoline ethanol flex fuel blendstock, and renewable fuels.

The sampling methods specified in this section shall be used to collect samples of gasoline, diesel fuel, blendstocks, fuel additives, ethanol flex fuel, natural gasoline ethanol flex fuel blendstock, and renewable fuels for purposes of determining compliance with the requirements of this part.

* * * * *

■ 8. Section 80.9 is revised to read as follows:

§ 80.9 Rounding a test result for determining conformance with a fuels standard.

(a) For purposes of determining compliance with the fuel standards of 40 CFR part 80, a test result will be rounded to the nearest unit of significant digits specified in the applicable fuel standard in accordance with the rounding method described in ASTM E29–13, Standard Practice for Using Significant Digits in Test Data to Determine Conformance with Specifications, approved August 1, 2013.

(b) ASTM E29–13 is incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. A copy may be obtained from the American Society for Testing and Materials, 100 Barr Harbor Dr., West Conshohocken, PA 19428–2959. Copies may be inspected at the Air Docket, EPA/DC, William Jefferson Clinton Building West, Room B102, 1301 Constitution Ave. NW., Washington, DC, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741–6030 or go to:

■ 9. Section 80.10 is added to read as follows:

§ 80.10 Addresses.

(a) For submitting notifications, applications, petitions, or other communications with the EPA, use one of the following addresses for mailing:

(1) For U.S. Mail: Attn: [TITLE AS DIRECTED], U.S. Environmental Protection Agency, 1200 Pennsylvania Ave. NW., Mail Code 6405A, Washington, DC 20460

(2) For commercial service: Attn: [TITLE AS DIRECTED], U.S. Environmental Protection Agency, William Jefferson Clinton Building North, Mail Code 6405A, Room 6520V, 1200 Pennsylvania Ave. NW., Washington, DC 20004; Phone: 1–800–385–6164.

(b) [Reserved]

Subpart B—Controls and Prohibitions

■ 10. Section 80.27 is amended by revising paragraphs (b) and (e)(1)(i) to read as follows:

§ 80.27 Controls and prohibitions on gasoline volatility.

* * * * *

(b) *Determination of compliance.* Compliance with the standards listed in paragraph (a) of this section shall be determined by the use of the sampling methodologies specified in § 80.8 and the testing methodology specified in § 80.46(c) until December 31, 2015, and § 80.47 beginning January 1, 2016.

* * * * *

(e) * * *

(1) * * *

(i) Any person may request a testing exemption by submitting an application that includes all the information listed in paragraphs (e)(3) through (6) of this section to the attention of ''Test Exemptions'' to the address in § 80.10(a).

* * * * *

Subpart D—Reformulated Gasoline

■ 11. Section 80.46 is amended by:

■ a. Revising paragraphs (a), (b), (d), (e), (f), and (g);

■ b. Redesignating paragraph (h) as paragraph (k) and adding new paragraphs (h) through (j); and

■ c. Revising newly redesignated paragraph (k)(1).

The revisions and additions read as follows:

§ 80.46 Measurement of reformulated gasoline and conventional gasoline fuel parameters.

(a) *Sulfur.* Sulfur content of gasoline and butane must be determined by use of the following methods:

(1)(i) Through December 31, 2015, the sulfur content of gasoline must be determined by ASTM D2622.

(ii) Beginning January 1, 2016, the sulfur content of gasoline must be determined by a test method approved under § 80.47.

(2)(i) Through December 31, 2015, the sulfur content of butane must be determined by ASTM D6667.

(ii) Beginning January 1, 2016, the sulfur content of butane must be determined by a test method approved under § 80.47.

(b) *Olefins.* Olefin content must be determined by use of the following methods:

(1) Through December 31, 2015, olefin content must be determined using ASTM D1319.

(2) Beginning January 1, 2016, olefin content must be determined by a test method approved under § 80.47.

* * * * *

(d) *Distillation.* Distillation parameters must be determined by use of the following test methods:

(1) Through December 31, 2015, distillation parameters must be determined using ASTM D86.

(2) Beginning January 1, 2016, distillation parameters must be determined by a test method approved under § 80.47. (Note: The precision estimates for reproducibility in ASTM D86–12 do not apply; see § 80.47(h).)

(e) *Benzene.* Benzene content must be determined by use of the following test methods:

(1) Through December 31, 2015, benzene content must be determined using ASTM D5769 or ASTM D3606, except that ASTM D3606 instrument parameters shall be adjusted to ensure complete resolution of the benzene, ethanol, and methanol peaks because ethanol and methanol may cause interference with ASTM D3606 when present.

(2) Beginning January 1, 2016, benzene content must be determined by a test method approved under § 80.47.

(f) *Aromatic content.* Olefin content must be determined by use of the following methods:

(1) Through December 31, 2015, aromatic content must be determined using ASTM D5769, except the sample chilling requirements in section 8 of this standard method are optional.

(2) Beginning January 1, 2016, aromatic content must be determined by a test method approved under § 80.47.

(g) *Oxygen and oxygenate content analysis.* Oxygen and oxygenate content must be determined by use of the following methods:

(1) Through December 31, 2015, oxygen and oxygenate content must be determined using ASTM D5599.

(2) Beginning January 1, 2016, oxygen and oxygenate content must be determined by a test method approved under § 80.47.

(h) *Benzene in pentane.* (1) Benzene content in pentane must be determined using the primary test method ASTM D6730.

(2) Any refiner, importer, or oxygenate blender may determine benzene content in pentane using ASTM D6729 for purposes of meeting any testing requirement, provided that the test result is correlated with the method specified in paragraph (h)(1) of this section.

(i) *Aromatics in pentane.* (1) Aromatic content in pentane must be determined using the primary test method ASTM D6730.

(2) Any refiner, importer, or oxygenate blender may determine aromatic content in pentane using ASTM D6729 for purposes of meeting any testing requirement, provided that the test result is correlated with the method specified in paragraph (i)(1) of this section.

(j) *C6-plus hydrocarbons in pentane.* (1) C6-plus hydrocarbon content in pentane must be determined using the primary test method ASTM D6730.

(2) Any refiner, importer, or oxygenate blender may determine C6-plus hydrocarbon content in pentane using ASTM D6729 for purposes of meeting any testing requirement, provided that the test result is correlated with the method specified in paragraph (j)(1) of this section.

(k) * * *

(1) *ASTM International material.* The following standards are available from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428–2959, (877) 909–ASTM, or *http://www.astm.org*:

(i) ASTM D86–12, Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure, approved December 1, 2012 (''ASTM D86'').

(ii) ASTM D1319–13, Standard Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption, approved May 1, 2013 (''ASTM D1319'').

(iii) ASTM D2622–10, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry, approved February 15, 2010 (''ASTM D2622'').

(iv) ASTM D3606–10, Standard Test Method for Determination of Benzene and Toluene in Finished Motor and Aviation Gasoline by Gas Chromatography, approved October 1, 2010 (''ASTM D3606'').

(v) ASTM D5191–13, Standard Test Method for Vapor Pressure of Petroleum Products (Mini Method), approved December 1, 2013 (''ASTM D5191'').

(vi) ASTM D5599–00 (Reapproved 2010), Standard Test Method for Determination of Oxygenates in Gasoline by Gas Chromatography and Oxygen Selective Flame Ionization Detection, approved October 1, 2010 (''ASTM D5599'').

(vii) ASTM D5769–10, Standard Test Method for Determination of Benzene, Toluene, and Total Aromatics in Finished Gasolines by Gas Chromatography/Mass Spectrometry, approved May 1, 2010 (''ASTM D5769'').

(viii) ASTM D6667–10, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, approved October 1, 2010 (''ASTM D6667'').

(ix) ASTM D6730–01 (Reapproved 2011), Standard Test Method for Determination of Individual Components in Spark Ignition Fuels by 100-Metre Capillary (Pre-Column) High-Resolution Gas Chromatography, approved May 1, 2011 (''ASTM D6730'').

(x) ASTM D6729–14, Standard Test Method for Determination of Individual Components in Spark Ignition Fuels by 100-Metre Capillary High-Resolution Gas Chromatography, approved October 1, 2014 (''ASTM D6729'').

* * * * *

■ 12. Section 80.47 is amended by:
■ a. Revising paragraphs (b), (c)(2)(i) and (ii), (c)(3), (d)(2), (e)(2), (f)(2), (g)(2), (h)(2), (i)(2), (j)(2), and (l)(2)(i);
■ b. Adding paragraph (l)(2)(iii); and
■ c. Revising paragraphs (l)(4), (n)(1), (n)(2)(i), (o)(1), (o)(2)(i), (p)(1), (p)(2)(i), and (p)(3)(i).

The revisions and addition read as follows:

§ 80.47 Performance-based Analytical Test Method Approach.

* * * * *

(b) *Precision and accuracy criteria for approval for the absolute fuel parameter of gasoline sulfur and pentane sulfur.* (1) *Precision.* Beginning January 1, 2016, for motor vehicle gasoline, gasoline blendstock, pentane, and gasoline fuel additives subject to the gasoline sulfur standard at §§ 80.195 and 80.1603, the maximum allowable standard deviation computed from the results of a minimum of 20 tests made over 20 days

(tests may be arranged into no fewer than five batches of four or fewer tests each, with only one such batch allowed per day over the minimum of 20 days) on samples using good laboratory practices taken from a single homogeneous commercially available gasoline must be less than or equal to 1.5 times the repeatability ''r'' divided by 2.77, where ''r'' equals the ASTM repeatability of ASTM D7039 (Example: A 10 ppm sulfur gasoline sample: Maximum allowable standard deviation of 20 tests ≤1.5*(1.73ppm/2.77) = 0.94 ppm). The 20 results must be a series of tests with a sequential record of analysis and no omissions. A laboratory facility may exclude a given sample or test result only if the exclusion is for a valid reason under good laboratory practices and it maintains records regarding the sample and test results and the reason for excluding them.

(2) *Accuracy.* Beginning January 1, 2016, for motor vehicle gasoline, gasoline blendstock, pentane, and gasoline fuel additives subject to the gasoline sulfur standard at §§ 80.195 and 80.1603:

(i) The arithmetic average of a continuous series of at least 10 tests performed using good laboratory practices on a commercially available gravimetric sulfur standard in the range of 1–10 ppm shall not differ from the accepted reference value (ARV) of the standard by more than 0.47 ppm sulfur, where the accuracy criteria is 0.75*(1.5*r/2.77), where ''r'' is the repeatability (Example: 0.75*(1.5*1.15ppm/2.77) = 0.47 ppm);

(ii) The arithmetic average of a continuous series of at least 10 tests performed using good laboratory practices on a commercially available gravimetric sulfur standard in the range of 10–20 ppm shall not differ from the ARV of the standard by more than 0.94 ppm sulfur, where the accuracy criteria is 0.75*(1.5*r/2.77), where ''r'' is the repeatability (Example: 0.75*(1.5*2.30ppm/2.77) = 0.94 ppm); and

(iii) In applying the tests of paragraphs (b)(2)(i) and (ii) of this section, individual test results shall be compensated for any known chemical interferences using good laboratory practices.

(3) The test method specified at § 80.46(a)(1) is exempt from the requirements of paragraphs (b)(1) and (2) of this section.

(c) * * *

(2) * * *

(i) The arithmetic average of a continuous series of at least 10 tests performed using good laboratory practices on a commercially available gravimetric sulfur standard in the range of 1–10 ppm, say 10 ppm, shall not differ from the ARV of the standard by more than 0.47 ppm sulfur, where the accuracy criteria is 0.75*(1.5*r/2.77), where ''r'' is the repeatability (Example: 0.75*(1.5*1.15ppm/2.77) = 0.47 ppm);

(ii) The arithmetic average of a continuous series of at least 10 tests performed using good laboratory practices on a commercially available gravimetric sulfur standard in the range of 10–20 ppm, say 20 ppm, shall not differ from the ARV of the standard by more than 0.94 ppm sulfur, where the accuracy criteria is 0.75*(1.5*r/2.77), where ''r'' is the repeatability (Example: 0.75*(1.5*2.30ppm/2.77) = 0.94 ppm); and

* * * * *

(3) The test method specified at § 80.46(a)(2) is exempt from the requirements of paragraphs (c)(1) and (2) of this section.

(d) * * *

(2) The test method specified at § 80.46(b)(1) is exempt from the requirements of paragraph (d)(1) of this section.

(e) * * *

(2) The test method specified at § 80.46(f)(1) is exempt from the requirements of paragraph (e)(1) of this section.

(f) * * *

(2) The test method specified at § 80.46(g)(1) is exempt from the requirements of paragraph (f)(1) of this section.

(g) * * *

(2) The test method specified at § 80.46(c)(1) is exempt from the requirements of paragraph (g)(1) of this section.

(h) * * *

(2) The test method specified at § 80.46(d)(1) is exempt from the requirements of paragraph (h)(1) of this section.

(i) * * *

(2) The test methods specified at § 80.46(e)(1) are exempt from the requirements of paragraph (i)(1) of this section.

(j) * * *

(2) The test method specified at § 80.2(z) is exempt from the requirements of paragraph (j)(1) of this section.

* * * * *

(l) * * *

(2)(i) The test facility demonstrates that the test method meets the applicable precision information for the method-defined or non-VCSB absolute fuel parameter as described in this section.

* * * * *

(iii) For the non-VCSB absolute fuel parameter of sulfur in gasoline, butane, and pentane, the test facility shall include information demonstrating that the comparison of the non-VCSB test method and respective designated primary test method results in sample specific biases that are determined as random. If the sample specific biases through use of ASTM D6708 between the non-VCSB test method and designated primary test method cannot be determined as random, the non-VCSB test method is disqualified from approval.

* * * * *

(4) The test methods specified at §§ 80.2(z) and 80.46(a)(1), (a)(2), (b)(1), (c)(1), (d)(1), (e)(1), (f)(1), and (g)(1) are exempt from the requirements of paragraphs (l)(1) through (3) of this section.

* * * * *

(n) * * *

(1)(i) *Accuracy SQC.* Every facility shall conduct tests on every instrument with a commercially available gravimetric reference material, or check standard as defined in ASTM D6299 at least three times a year using good laboratory practices. The facility must construct ''MR'' and ''I'' charts with control lines as described in section 8.4 and appropriate Annex sections of this standard practice. In circumstances where the absolute difference between the mean of multiple back-to-back tests of the standard reference material and the ARV of the standard reference material is greater than 0.75 times the published reproducibility of the test method, the cause of such difference must be investigated by the facility. Records of the standard reference materials measurements as well as any investigations into any exceedance of these criteria must be kept for a period of five years.

(ii) The expanded uncertainty of the ARV of consensus named fuels shall be included in the following accuracy qualification criterion: Accuracy qualification criterion = square root [(0.75R)^2 + (0.75R)^2/L], where L = the number of single results obtained from different labs used to calculate the consensus ARV.

(2)(i) *Precision SQC.* Every facility shall conduct tests of every instrument with a quality control material as defined in paragraph 3.2.8 in ASTM D6299 either once per week or once per every 20 production tests, whichever is more frequent. The facility must construct and maintain an ''I'' chart as described in section 8 and section A1.5.1 and a ''MR'' chart as described in section A1.5.4. Any violations of control

limit(s) shall be investigated by personnel of the facility and records kept for a period of five years. The test facility's long term site precision standard deviation, as demonstrated by the ''I'' chart and ''M'' chart, must meet the applicable precision criterion as described in paragraph (b)(1) or (c)(1) of this section.

* * * * *

(o) * * *

(1)(i) *Accuracy SQC.* Every facility shall conduct tests of every instrument with a commercially available check standard as defined in ASTM D6299 at least three times a year using good laboratory practices. The check standard must be an ordinary fuel with levels of the fuel parameter of interest close to either the applicable regulatory standard or the average level of use for the facility. For facilities using a VCSB designated method defined test method, the ARV of the check standard must be determined by the respective designated test method for the fuel parameter following the guidelines of ASTM D6299. Facilities using a VCSB alternative method defined test method must use the ARV of the check standard as determined in a VCSB Inter Laboratory Crosscheck Program (ILCP) or a commercially available ILCP following the guidelines of ASTM D6299. If the ARV is not provided in the ILCP, accuracy must be assessed based upon the respective EPA-designated test method using appropriate production samples. The facility must construct ''MR'' and ''I'' charts with control lines as described in section 8.4 and appropriate Annex sections of this standard practice. In circumstances where the absolute difference between test results and the ARV of the check standard based on the designated primary test method is greater than 0.75 times the published reproducibility of the designated primary test method, the cause of such difference must be investigated by the facility. Participation in a VCSB ILCP or a commercially available ILCP meeting the ASTM D6299 requirements for ILCP check standards, based on the designated primary test method, at least three times a year, and, meeting the requirements in this section for absolute differences between the test results and the ARV of the check standard based on the designated primary test method of less than 0.75 times the published reproducibility of the designated primary test method obtained through participation in the ILCP satisfies this Accuracy SQC requirement (Examples of VCSB ILCPs: ASTM Reformulated Gasoline ILCP or ASTM motor gasoline ILCP). Records of the standard reference materials measurements as well as any investigations into any exceedance of these criteria must be kept for a period of five years.

(ii) The expanded uncertainty of the ARV of consensus named fuels shall be included in the following accuracy qualification criterion: Accuracy qualification criterion = square root $[(0.75R) - 2 + (0.75R) - 2/L]$, where L = the number of single results obtained from different labs used to calculate the consensus ARV.

(2)(i) *Precision SQC.* Every facility shall conduct tests of every instrument with a quality control material as defined in paragraph 3.2.8 in ASTM D6299 either once per week or once per every 20 production tests, whichever is more frequent. The facility must construct and maintain an ''I'' chart as described in section 8 and section A1.5.1 and a ''MR'' chart as described in section A1.5.4. Any violations of control limit(s) shall be investigated by personnel of the facility and records kept for a period of five years. The test facility's long term site precision standard deviation, as demonstrated by the ''I'' chart and ''M'' chart, must meet the applicable precision criterion as described in paragraph (d)(1), (e)(1), (f)(1), (g)(1), (h)(1), (i)(1), or (j)(1) of this section.

* * * * *

(p) * * *

(1)(i) *Accuracy SQC for Non-VCSB Method-Defined test methods with minimal matrix effects.* Every facility shall conduct tests on every instrument with a commercially available check standard as defined in the ASTM D6299 at least three times a year using good laboratory practices. The check standard must be an ordinary fuel with levels of the fuel parameter of interest close to either the applicable regulatory standard or the average level of use for the facility. Facilities using a Non-VCSB alternative method defined test method must use the ARV of the check standard as determined in either a VCSB Inter Laboratory Crosscheck Program (ILCP) or a commercially available ILCP following the guidelines of ASTM D6299. If the ARV is not provided in the ILCP, accuracy must be assessed based upon the respective EPA designated test method using appropriate production samples. The facility must construct ''MR'' and ''I'' charts with control lines as described in section 8.4 and appropriate Annex sections of this standard practice. In circumstances where the absolute difference between the mean of multiple back-to-back tests of the standard reference material and the ARV of the standard reference material is greater than 0.75 times the published reproducibility of the fuel parameter's respective designated test method, the cause of such difference must be investigated by the facility. Records of the standard reference materials measurements as well as any investigations into any exceedance of these criteria must be kept for a period of five years.

(ii) The expanded uncertainty of the ARV of consensus named fuels shall be included in the following accuracy qualification criterion: Accuracy qualification criterion = square root $[(0.75R) - 2 + (0.75R) - 2/L]$, where L = the number of single results obtained from different labs used to calculate the consensus ARV.

(2)(i) *Accuracy SQC for Non-VCSB Method-Defined test methods with high sensitivity to matrix effects.* Every facility shall conduct tests on every instrument with a production fuel on at least a quarterly basis using good laboratory practices. The production fuel must be representative of the production fuels that are routinely analyzed by the facility. The ARV of the production fuel must be determined by the respective reference installation of the designated test method for the fuel parameter following the guidelines of ASTM D6299. The facility must construct ''MR'' and ''I'' charts with control lines as described in section 8.4 and appropriate Annex sections of this standard practice. In circumstances where the absolute difference between the mean of multiple back-to-back tests of the standard reference material and the ARV of the standard reference material is greater than 0.75 times the published reproducibility of the test method must be investigated by the facility. Documentation on the identity of the reference installation and its control status must be maintained on the premises of the method-defined alternative test method. Records of the standard reference materials measurements as well as any investigations into any exceedances of this criterion must be kept for a period of five years.

* * * * *

(3)(i) *Precision SQC.* Every facility shall conduct tests of every instrument with a quality control material as defined in paragraph 3.2.8 in ASTM D6299 either once per week or once per every 20 production tests, whichever is more frequent. The facility must construct and maintain an ''I'' chart as described in section 8 and section A1.5.1 and a ''MR'' chart as described in section A1.5.4. Any violations of control

limit(s) shall be investigated by personnel of the facility and records kept for a period of five years. The test facility's long term site precision standard deviation, as demonstrated by the ''I'' chart and ''M'' chart, must meet the applicable precision criterion as described in paragraph (b)(1), (c)(1), (d)(1), (e)(1), (f)(1), (g)(1), (h)(1), (i)(1) or (j)(1) of this section.

* * * * *

■ 13. Section 80.69 is amended by revising paragraph (a)(11)(viii)(C) to read as follows:

§ 80.69 Requirements for downstream oxygenate blending.

(a) * * *

(11) * * *

(viii) * * *

(C) The survey plan must be sent to the attention of ''RFG Program (Survey Plan)'' to the address in § 80.10(a);

* * * * *

Subpart E—Anti-Dumping

■ 14. Section 80.93 is amended by revising paragraph (d)(4) to read as follows:

§ 80.93 Individual baseline submission and approval.

* * * * *

(d) * * *

(4) For U.S. Postal delivery, the petition shall be sent to the attention of ''RFG Program (Baseline Petition)'' to the address in § 80.10(a).

* * * * *

Subpart F—Attest Engagements

■ 15. Section 80.130 is amended by revising paragraph (a)(2) to read as follows:

§ 80.130 Agreed upon procedures reports.

(a) * * *

(2) The CPA or CIA shall provide a copy of the auditor's report to the EPA within the time specified in § 80.75(m).

* * * * *

Subpart G—Detergent Gasoline

■ 16. Section 80.164 is amended by revising the first two sentences of paragraph (a)(5) to read as follows:

§ 80.164 Certification test fuels.

(a) * * *

(5) Unless otherwise required by this section, finished test fuels must conform to the requirements for commercial gasoline described in ASTM D 4814–14b, Standard Specification for Automotive Spark-Ignition Engine Fuel, approved October 1, 2014, which is incorporated by reference. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at U.S. Environmental Protection Agency, William Jefferson Clinton Building West, Room B102, 1301 Constitution Ave. NW., Washington, DC 20460, or at the National Archives and Records Administration (NARA). * * *

* * * * *

■ 17. Section 80.169 is amended by revising paragraph (c)(9)(v) to read as follows:

§ 80.169 Liability for violations of the detergent certification program controls and prohibitions.

* * * * *

(c) * * *

(9) * * *

(v) In all such instances, a curing VAR must be created and maintained, which documents the use of the appropriate equation as specified above, and otherwise complies with the requirements of § 80.170(f)(7).

■ 18. Section 80.170 is amended by redesignating paragraphs (f)(4) through (6) as (f)(5) through (7) and adding a new paragraph (f)(4) to read as follows:

§ 80.170 Volumetric additive reconciliation (VAR), equipment calibration, and recordkeeping requirements.

* * * * *

(f) * * *

(4) For all detergent blending facilities, a record specifying, for each VAR period, the total volume in gallons of unadditized base gasoline used to produce ethanol flex fuel pursuant to the requirements of subpart N of this part;

* * * * *

■ 19. Section 80.173 is amended by adding paragraph (d) to read as follows:

§ 80.173 Exemptions.

* * * * *

(d) *Ethanol flex fuel exemption.* Any gasoline or blendstock for oxygenate blending used to make ethanol flex fuel, as defined in § 80.2(q), is exempt from the provisions of this subpart, provided the ethanol flex fuel is in compliance with all applicable requirements of subpart N of this part.

■ 20. Section 80.174 is amended by revising paragraphs (b) and (c) to read as follows:

§ 80.174 Addresses.

* * * * *

(b) Other detergent registration and certification data, and certain other information which may be specified in this subpart, shall be sent to the attention of ''Detergent Additive Certification'' to the address in § 80.10(a).

(c) Notifications to EPA regarding program exemptions, detergent dilution and commingling, and certain other information which may be specified in this subpart, shall be sent to the attention of ''Detergent Enforcement Program'' to the address in § 80.10(a).

■ 21. Section 80.177 is amended by revising paragraphs (d)(1)(i) and (ii) to read as follows:

§ 80.177 Certification test fuels for use with the alternative test procedures and standards.

* * * * *

(d) * * *

(1) * * *

(i) ASTM D4806–15, Standard Specification for Denatured Fuel Ethanol for Blending with Gasolines for Use as Automotive Spark-Ignition Engine Fuel, approved April 1, 2015.

(ii) ASTM D4814–14b, Standard Specification for Automotive Spark-Ignition Engine Fuel, approved October 1, 2014.

* * * * *

Subpart H—Gasoline Sulfur

■ 22. Section 80.235 is amended by revising paragraph (b) to read as follows:

§ 80.235 How does a refiner obtain approval as a small refiner?

* * * * *

(b) Applications for small refiner status must be sent to the attention of ''Gasoline Sulfur Program (Small Refiner)'' to the address in § 80.10(a).

* * * * *

■ 23. Section 80.290 is amended by revising paragraph (b) to read as follows:

§ 80.290 How does a refiner apply for a sulfur baseline?

* * * * *

(b) The sulfur baseline request must be sent to the attention of ''Gasoline Sulfur Program (Sulfur Baseline)'' to the address in § 80.10(a).

* * * * *

Subpart I—Motor Vehicle Diesel Fuel; Nonroad, Locomotive, and Marine Diesel Fuel; and ECA Marine Fuel

■ 24. Section 80.533 is amended by revising paragraph (b) as follows:

§ 80.533 How does a refiner or importer apply for a motor vehicle or non-highway baseline for the generation of NRLM credits or the use of the NRLM small refiner compliance options?

* * * * *

(b) The baseline must be sent to the attention of ''Nonroad Rule Diesel Fuel Baseline'' to the address in § 80.10(a).

* * * * *

■ 25. Section 80.574 is amended by revising paragraph (b) as follows:

§ 80.574 What labeling requirements apply to retailers and wholesale purchaser-consumers of ECA marine fuel beginning June 1, 2014?

* * * * *

(b) Alternative labels to those specified in paragraph (a) of this section may be used as approved by EPA. Send requests to the attention of ''ECA Marine Fuel Alternative Label Request'' to the address in § 80.10(a).

■ 26. Section 80.585 is amended by:

■ a. Redesignating paragraph (b)(4) as paragraph (b)(5) and adding a new paragraph (b)(4); and

■ b. Revising paragraph (d)(4).

The addition and revision read as follows:

§ 80.585 What is the process for approval of a test method for determining the sulfur content of diesel or ECA marine fuel?

* * * * *

(b) * * *

(4) Provide information indicating that a comparison of the non-VCSB test method and its respective designated primary test method results in sample specific biases that are determined to be random. If the sample specific biases through use of ASTM D6708 between the non-VCSB test method and designated primary test method cannot be determined as random, the non-VCSB test method is disqualified from approval.

* * * * *

(d) * * *

(4) The approval of any test method under paragraph (b) of this section shall be valid from the date of approval from the Administrator.

* * * * *

■ 27. Section 80.595 is amended by revising paragraph (b) to read as follows:

§ 80.595 How does a small or GPA refiner apply for a motor vehicle diesel fuel volume baseline for the purpose of extending their gasoline sulfur standards?

* * * * *

(b) The volume baseline must be sent via certified mail with return receipt or express mail with return receipt to the attention of ''Diesel Baseline'' to the address in § 80.10(a).

* * * * *

■ 28. Section 80.607 is amended by revising paragraph (a) to read as follows:

§ 80.607 What are the requirements for obtaining an exemption for diesel fuel used for research, development or testing purposes?

(a) *Written request for a research and development exemption.* Any person may receive an exemption from the provisions of this subpart for diesel fuel or ECA marine fuel used for research, development, or testing purposes by submitting the information listed in paragraph (c) of this section to the attention of ''Diesel Program (Diesel Exemption Request)'' to the address in § 80.10(a).

* * * * *

Subpart J—Gasoline Toxics

■ 29. Section 80.855 is amended by revising paragraph (c)(2) to read as follows:

§ 80.855 What is the compliance baseline for refineries or importers with insufficient data?

* * * * *

(c) * * *

(2) *Application process.* Applications must be submitted to the attention of ''Anti-Dumping Compliance Period'' to the address in § 80.10(a).

* * * * *

Subpart L—Gasoline Benzene

■ 30. Section 80.1230 is amended by adding paragraph (a)(6) to read as follows:

§ 80.1230 What are the gasoline benzene requirements for refiners and importers?

(a) * * *

(6) Beginning February 1, 2018, a refiner that produces E15 at a blender pump-refinery, as defined in § 80.1500, shall be deemed in compliance with the provisions of this subpart, provided the refiner is in compliance with the requirements for gasoline produced by blender pump-refiners in § 80.1530.

* * * * *

■ 31. Section 80.1240 is amended in paragraph (a)(1)(i) in the equation by revising the definition ''OC'' to read as follows:

§ 80.1240 How is a refinery's or importer's compliance with the gasoline benzene requirements of this subpart determined?

(a) * * *

(1)(i) * * *

OC = Benzene credits used by the refinery or importer to show compliance (gallons benzene).

* * * * *

■ 32. Section 80.1285 is amended by revising paragraph (b) to read as follows:

§ 80.1285 How does a refiner apply for a benzene baseline?

* * * * *

(b) For U.S. Postal delivery, the benzene baseline application shall be sent to the attention of ''MSAT2 Benzene'' to the address in § 80.10(a).

* * * * *

■ 33. Section 80.1340 is amended by revising paragraph (b) to read as follows:

§ 80.1340 How does a refiner obtain approval as a small refiner?

* * * * *

(b) Applications for small refiner status must be sent to the attention of ''MSAT2 Benzene'' to the address in § 80.10(a).

* * * * *

Subpart M—Renewable Fuel Standard

■ 34. Section 80.1401 is amended by:

■ a. Revising the definition of ''Actual peak capacity'';

■ b. Adding in alphabetical order a definition for ''Affiliate'';

■ c. Revising the definition of ''Baseline volume'';

■ d. Adding in alphabetical order definitions for ''Biogas producer'', ''Biointermediate'', ''Biointermediate import facility'', ''Biointermediate importer'', ''Biointermediate producer'', ''Biointermediate production facility'', ''Carbon capture and storage or CCS'', and ''Cellulosic biomass-based diesel'';

■ e. Revising the definitions of ''Cellulosic diesel'', ''Co-processed'', and ''Corn oil extraction'';

■ f. Adding in alphabetical order definitions for ''Exempted baseline peak capacity'' and ''Exempted baseline volume'';

■ g. Revising the definition of ''Foreign ethanol producer'';

■ h. Adding in alphabetical order definitions for ''Foreign renewable fuel producer'' and ''Geologic sequestration facility'';

■ i. Revising paragraph (2) in the definition of ''Heating oil'' and the definition of ''Non-ester renewable diesel'';

■ j. Adding in alphabetical order definitions for ''Non-renewable feedstock'' and ''Non-RIN-generating foreign producer'';

■ k. Revising the definitions of ''Quality assurance audit'' and ''Quality assurance plan, or QAP'';

■ l. Revising paragraph (2) in the definition of ''Renewable fuel'';

■ m. Adding in alphabetical order definitions for ''RIN-generating foreign producer'', ''Short-rotation hybrid poplar'', ''Short-rotation willow'', ''Straight vegetable oil'', and ''Surface leakage'';

■ n. Revising the definition of ''Tree plantation''; and
■ o. Adding in alphabetical order a definitions for ''Viscous renewable diesel blender or VRD blender''.

The revisions and additions read as follows:

§ 80.1401 Definitions.

* * * * *

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. The actual peak capacity is based on the last five calendar years prior to the year in which the owner or operator registers the facility under the provisions of § 80.1450, unless no such production exists, in which case actual peak capacity is based on any calendar year after startup during the first three years of operation.

* * * * *

Affiliate is used to indicate a relationship to a specified entity, and means any entity that, directly or indirectly or through one or more intermediaries, owns or controls, is owned or controlled by, or is under common ownership or control with such entity.

* * * * *

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. If neither permitted capacity nor actual peak capacity can be determined, baseline volume means the nameplate capacity of a specific renewable fuel production facility on a calendar year basis. Baseline volume includes exempted baseline volume and any additional renewable fuel production capacity for which a renewable fuel producer is not claiming an exemption as described in § 80.1403(c) or (d).

* * * * *

Biogas producer means any landfill, municipal wastewater treatment facility digester, agricultural digester, or separated MSW digester that produces biogas used to produce renewable fuel.

Biointermediate means any feedstock material that is used to produce renewable fuel and meets all of the following requirements:

(1) It is derived from renewable biomass.

(2) It does not meet the definition of renewable fuel and RINs were not generated for it as a renewable fuel in its own right.

(3) It is produced at a facility registered with EPA that is different than the facility at which it is used to produce renewable fuel.

(4) It is made from the feedstock and will be used to produce the renewable fuel in accordance with the process(es) listed in the approved pathway (as described in Table 1 to § 80.1426 or a pathway approval pursuant to § 80.1416) that the biointermediate producer and renewable fuel producer are using to convert renewable biomass to renewable fuel.

(5)(i) It is substantially altered from the feedstock listed in the approved pathway that the biointermediate producer and renewable fuel producer are using to convert renewable biomass to renewable fuel;

(ii) The substantial alteration is other than a form change such as chopping, crushing, grinding, pelletizing, filtering, compacting/compression, centrifuging, dewatering/drying, melting, or the addition of water to produce a slurry; and

(iii) The substantial alteration does not involve the isolation or concentration of non-characteristic components of the feedstock to yield an intermediate product not contemplated by EPA in establishing the approved pathway that the biointermediate producer and the renewable fuel producer are using to convert renewable biomass to renewable fuel.

Biointermediate import facility means any facility where a biointermediate is imported into the United States.

Biointermediate importer means any person who owns, leases, operates, controls, or supervises a biointermediate import facility.

Biointermediate producer means any person who owns, leases, operates, controls, or supervises a biointermediate production facility.

Biointermediate production facility means all of the activities and equipment associated with the production of a biointermediate starting from the point of delivery of feedstock material to the point of final storage of the end biointermediate product, which are located on one property, and are under the control of the same person (or persons under common control).

* * * * *

Carbon capture and storage or *CCS* means the capture, treatment, and compression of CO_2 at a renewable fuel facility, transportation of that CO_2, and geologic sequestration of that CO_2 at a geologic sequestration facility.

* * * * *

Cellulosic biomass-based diesel is any renewable fuel that meets both the definitions of cellulosic diesel and biomass-based diesel, as defined in this section 80.1401.

Cellulosic diesel is any renewable fuel that meets the definition of cellulosic biofuel, as defined in this section 80.1401, 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) Cellulosic diesel includes heating oil and jet fuel made from cellulosic feedstocks and renewable fuel that is co-processed with petroleum.

* * * * *

Co-processed means that renewable biomass or a biointermediate 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 or a biointermediate.

Corn oil extraction means the recovery of corn oil at any point downstream of when a dry mill corn ethanol plant grinds the corn, provided that the corn is converted to ethanol, the oil is rendered unfit for food uses without further refining, and the oil extraction results in distillers grains marketable as animal feed.

* * * * *

Exempted baseline 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 for which a renewable fuel producer is claiming the exemption described in § 80.1403(c) or (d).

(1) For facilities that commenced construction prior to December 19, 2007, the exempted baseline 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 based on any calendar year after startup during the first three years of operation.

(2) For facilities that commenced construction after December 19, 2007, and before January 1, 2010, that are fired with natural gas, biomass, or a combination thereof, the exempted baseline peak capacity is based on any calendar year after startup during the first three years of operation.

Exempted baseline volume means the capacity of a facility for volume for which a renewable fuel producer is claiming the exemption described in § 80.1403(c) or (d). The exempted baseline volume is the permitted

capacity as demonstrated during registration as described in § 80.1450(b)(1)(v)(B), or if permitted capacity cannot be determined, the exempted baseline peak capacity.

* * * * *

Foreign ethanol producer means a foreign renewable fuel producer who produces ethanol for use in transportation fuel, heating oil, or jet fuel, but who does not add ethanol denaturant to their product as described in paragraph (2) of the definition of renewable fuel in this section.

Foreign renewable fuel producer means a person from a foreign country or from an area that has not opted into the program requirements of this subpart who produces renewable fuel.

* * * * *

Geologic sequestration facility means any well or group of wells that is a ''facility,'' as defined under 40 CFR 98.6, that inject a CO_2 stream for long-term containment in subsurface geologic formations as described in 40 CFR 98.440.

Heating oil * * *

(2) A fuel oil that is used to heat or cool interior spaces of homes or buildings to control ambient climate for human comfort. The fuel oil must be liquid at 60 degrees Fahrenheit and 1 atmosphere of pressure, and contain no more than 2.5% mass solids.

* * * * *

Non-ester renewable diesel, also known as renewable diesel, is either viscous or non-viscous renewable diesel:

(1) Non-viscous renewable diesel satisfies all of the following:

(i) Is not a mono-alkyl ester.

(ii) Meets the ASTM D975–13a (incorporated by reference, see § 80.1468) Grade No. 1–D or No. 2–D specifications prior to blending with any other product.

(iii) Can be used in an engine designed to operate on conventional diesel fuel.

(iv) Is produced through a hydrotreating process.

(2) Viscous renewable diesel (VRD) satisfies all of the following:

(i) Is not a mono-alkyl ester.

(ii) Is a straight vegetable oil

(iii) Is intended for use as one of the following:

(A) A blend in an engine designed to operate on conventional diesel fuel (referred to as VRD for blending or VRD–B).

(B) A neat fuel for use either: In a vehicle or engine that has been converted to use such fuel under an EPA-approved Clean Alternative Fuel Conversion under 40 CFR part 85, subpart F; as heating oil; or as jet fuel (collectively referred to as VRD for neat use or VRD–N).

* * * * *

Non-renewable feedstock means a feedstock that does not meet the definition of renewable biomass.

Non-RIN-generating foreign producer means a foreign renewable fuel producer that has been approved by EPA to produce renewable fuel for which RINs have not been generated.

* * * * *

Quality assurance audit means an audit of a renewable fuel production facility or biointermediate production facility conducted by an independent third-party auditor in accordance with a QAP that meets the requirements of §§ 80.1469, 80.1472, and 80.1476.

Quality assurance plan, or *QAP,* means the list of elements that an independent third-party auditor will check to verify that the RINs generated by a renewable fuel producer or importer are valid, including RINs generated from renewable fuel produced from a biointermediate. A QAP includes both general and pathway specific elements.

* * * * *

Renewable fuel * * *

(2) Ethanol covered by this definition shall be denatured using an ethanol denaturant as required in 27 CFR parts 19 through 21. Any volume of ethanol 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.

* * * * *

RIN-generating foreign producer means a foreign renewable fuel producer that has been approved by EPA to generate RINs for renewable fuel it produces.

Short-rotation hybrid poplar means a species or a cross of species in the *Populus* genus that is grown with harvest rotations of less than 10 years. Qualifying species include *Populus (P.) deltoides, P. trichocarpa, P. nigra,* and *P. suaveolens* subsp. *maximowiczii,* as well as crosses between them.

Short-rotation willow means a species or a cross of species in the *Salix* genus that is grown with harvest rotations of less than 10 years. Qualifying species include *Salix (S.) miyabeana, S. purpurea, S. eriocephala, S. caprea* hybrid, and *S.* x *dasyclados,* as well as crosses between *S. koriyanagi* and *S. purpurea, S. viminalis* and *S. miyabeana,* and *S. purpurea,* and *S. miyabeana.*

* * * * *

Straight vegetable oil includes all of the following products:

(1) Soy bean oil.

(2) Oil from annual covercrops.

(3) Algal oil.

(4) Biogenic waste oils/fats/greases that are of plant origin.

(5) Non-food grade corn oil.

(6) *Camelina sativa* oil.

(7) Canola/Rapeseed Oil.

(8) Any other vegetable oil listed as a feedstock in Table 1 to § 80.1426 or described in a pathway approved pursuant to § 80.1416.

Surface leakage has the same meaning as defined in 40 CFR 98.449.

* * * * *

Tree plantation is a stand of no less than 1 acre on non-federal lands that is 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;

(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; or

(8) Records satisfying the requirements of paragraph (2) of the definition of existing agricultural land in this section that demonstrates that the land was actively managed or fallow agricultural land.

* * * * *

Viscous renewable diesel blender or *VRD blender* means a party that blends VRD–B with petroleum diesel to produce fuel that meets the specifications of ASTM D975 Grade No. 1–D or No. 2–D (incorporated by reference, see § 80.1468).

■ 35. Section 80.1403 is amended by adding paragraph (g) to read as follows:

§ 80.1403 Which fuels are not subject to the 20% GHG thresholds?

* * * * *

(g) Fuel produced by a facility meeting the requirements of paragraphs (c) or (d) of this section is not a qualifying renewable fuel unless it meets one of the following requirements:

(1) It is made in one facility from feedstock that is renewable biomass.

(2) It is made from a feedstock that is derived from renewable biomass and is listed in Table 1 to § 80.1426.

(3) It is made from a feedstock that is renewable biomass that was pre-processed at another facility, and such pre-processing at that facility was limited to form changes such as chopping, crushing, grinding, pelletizing, filtering, compaction/compression, centrifuging, dewater/drying, melting, and/or the addition of water to produce a slurry.

■ 36. Section 80.1415 is amended by revising paragraph (c)(4) to read as follows:

§ 80.1415 How are equivalence values assigned to renewable fuel?

* * * * *

(c) * * *

(4) Applications for equivalence values must be sent to the attention of ''RFS2 Program (Equivalence Value Application)'' to the address in § 80.10(a).

* * * * *

■ 37. Section 80.1425 is amended by revising paragraph (g)(5) to read as follows:

§ 80.1425 Renewable Identification Numbers (RINs).

* * * * *

(g) * * *

(5) D has the value of 7 to denote fuel categorized as cellulosic biomass-based diesel.

* * * * *

■ 38. Section 80.1426 is amended by:

■ a. Revising the section heading;

■ b. Revising paragraphs (a)(1) introductory text and (a)(2);

■ c. Adding paragraph (a)(4);

■ d. Revising paragraphs (c)(4) and (5);

■ e. Adding paragraphs (c)(8) and (9);

■ f. Revising paragraph (e)(1);

■ g. Removing paragraph (f)(1) introductory text (but retaining the subject heading);

■ h Adding paragraphs (f)(1)(i) through (vi) prior to tables 1 and 2 to § 80.1426;

■ i. In paragraph (f)(1), in Table 1 to § 80.1426, revising the entries F, H, K, L, and N and adding an entry U;

■ j. Revising the definitions of ''$V_{RIN,CD}$'' and ''EV_{CD}'' in Table 3 to § 80.1426 in paragraph (f)(3)(v);

■ k. Revising the definition of ''$V_{RIN,CD}$'' in Table 4 to § 80.1426 in paragraph (f)(3)(vi);

■ l. Revising the paragraph (f)(4) subject heading;

■ m. Revising the definitions of ''FE_R'' and ''FE_{NR}'' in paragraph (f)(4)(i)(A)(*1*); and

■ n. Adding paragraphs (f)(4)(iv) and (v), (f)(17)(ii), (f)(18), and (f)(19).

The revisions and additions read as follows:

§ 80.1426 How are RINs generated and assigned to batches of renewable fuel?

(a) * * *

(1) To the extent permitted under paragraphs (b) and (c) of this section, producers and importers of renewable fuel (other than VRD–B) and VRD blenders must generate RINs to represent that fuel if all of the following occur:

* * * * *

(2) To generate RINs for imported renewable fuel, including any renewable fuel contained in imported transportation fuel, heating oil, or jet fuel, importers must obtain information from a non-RIN-generating foreign renewable fuel 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.

* * * * *

(4) Where a feedstock or biointermediate is used to produce renewable fuel is not entirely renewable biomass, RINs may only be generated for the portion of fuel that is derived from renewable biomass, as calculated under paragraph (f)(4) of this section.

* * * * *

(c) * * *

(4) Importers shall not generate RINs for renewable fuel imported from a non-RIN-generating foreign renewable fuel producer unless the foreign renewable fuel producer is 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 RIN-generating foreign renewable fuel producer.

* * * * *

(8) RINs shall not be generated for the production of a biointermediate.

(9) Parties shall not generate RINs to represent renewable fuel prior to EPA approval of applicable registration requirements under § 80.1450(b), (c), (d)(1), and (d)(4).

* * * * *

(e) * * *

(1) Except as provided in paragraph (g) of this section for delayed RINs, the producer or importer of renewable fuel (other than VRD–B) or the VRD blender must assign all RINs generated to volumes of renewable fuel.

* * * * *

(f) * * *

(1) *Applicable pathways.* (i) D codes shall be used in RINs generated by producers or importers of renewable fuel (other than VRD–B) and VRD blenders according to the pathways listed in Table 1 of this section, paragraph (f)(6) of this section, or as approved by the Administrator.

(ii) 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.

(iii) Tables 1 and 2 to this section do not apply to, and impose no requirements with respect to, volumes of fuel for which RINs are generated pursuant to paragraph (f)(6) of this section.

(iv) Pathways in Table 1 to this section and advanced technologies in Table 2 to this section also apply in cases wherein the renewable fuel producer is using a biointermediate as the feedstock.

(v) For the purposes of identifying the appropriate pathway in Table 1 of this section, biointermediates used as feedstocks for the production of renewable fuel are considered to be equivalent to the renewable biomass from which they were derived, with the following exceptions:

(A) Oil that is physically separated from any woody or herbaceous biomass and used to produce cellulosic biofuel shall not generate D-code 3 or 7 RINs.

(B) Sugar or starch that is physically separated from cellulosic biomass and used to produce cellulosic biofuel shall not generate D-code 3 or 7 RINs.

(C) Free fatty acids that are physically separated from mono-, bi-, and triglycerides in biogenic waste oils/fats/greases are not biogenic waste oils/fats/greases.

(vi) If a renewable fuel producer uses a biointermediate as the feedstock for

the production of renewable fuel, additional requirements apply to both the renewable fuel producer and the biointermediate producer as provided in § 80.1475.

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
*	*	*	*	*
F	Biodiesel, renewable diesel, jet fuel and heating oil.	Soy bean oil; oil from annual covercrops; algal oil; biogenic waste oils/fats/greases; oil from corn oil extraction; *Camelina sativa* oil; non-cellulosic portions of separated food waste.	One of the following: Trans-Esterification Hydrotreating Excluding processes that co-process renewable biomass or a biointermediate and petroleum.	4
*	*	*	*	*
H	Biodiesel, renewable diesel, jet fuel and heating oil.	Soy bean oil; oil from annual covercrops; algal oil; biogenic waste oils/fats/greases; oil from corn oil extraction; *Camelina sativa* oil; non-cellulosic portions of separated food waste.	One of the following: Trans-Esterification Hydrotreating Includes only processes that co-process renewable biomass or a biointermediate and petroleum.	5
*	*	*	*	*
K	Ethanol	Crop residue, slash, pre-commercial thinnings and tree residue, switchgrass, miscanthus, energy cane, Arundo donax, Pennisetum purpureum, and separated yard waste; biogenic components of separated MSW; cellulosic components of separated food waste; cellulosic components of annual cover crops; short-rotation hybrid poplar; short-rotation willow.	Any process that converts cellulosic biomass to fuel.	3
L	Cellulosic diesel, jet fuel and heating oil.	Crop residue, slash, pre-commercial thinnings and tree residue, switchgrass, miscanthus, energy cane, Arundo donax, Pennisetum purpureum, and separated yard waste; biogenic components of separated MSW; cellulosic components of separated food waste; cellulosic components of annual cover crops; short-rotation hybrid poplar; short-rotation willow.	Any process that converts cellulosic biomass to fuel.	7
*	*	*	*	*
N	Naphtha	Switchgrass, miscanthus, energy cane, Arundo donax, Pennisetum purpureum; short-rotation hybrid poplar; short-rotation willow.	Gasification and upgrading processes that converts cellulosic biomass to fuel.	3
*	*	*	*	*
U	Cellulosic diesel, jet fuel and heating oil.	Crop residue, slash, pre-commercial thinnings and tree residue, switchgrass, miscanthus, energy cane, *Arundo donax, Pennisetum purpureum,* and separated yard waste; biogenic components of separated MSW; cellulosic components of separated food waste; and cellulosic components of annual cover crops.	Any process that converts cellulosic biomass to fuel; includes only processes that co-process renewable biomass or biointermediate with petroleum.	3

* * * * *

(3) * * *

(v) * * *

$V_{RIN,CD}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for the cellulosic biomass-based diesel portion of the batch with a D code of 7.

* * * * *

EV_{CD} = Equivalence value for the cellulosic biomass-based diesel portion of the batch per § 80.1415.

(vi) * * *

$V_{RIN,CD}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for a batch of cellulosic biomass-based diesel with a D code of 7.

* * * * *

(4) *Renewable fuel that is produced from a partially renewable biointermediate or by co-processing renewable biomass or a biointermediate and non-renewable feedstocks simultaneously to produce a fuel that is partially renewable.*

(i) * * *

(A) * * *

(*1*) * * *

FE_R = Feedstock energy from renewable biomass or the renewable portion of a biointermediate used to make the transportation fuel, in Btu.

FE_{NR} = Feedstock energy from non-renewable feedstocks or the non-renewable portion of a biointermediate used to make the transportation fuel, heating oil, or jet fuel, in Btu.

* * * * *

(iv) In no case shall the RIN volume V_{RIN} according to paragraph (f)(4)(i)(A) or (f)(4)(i)(B) of this section be more than the maximum renewable content as specified in the RIN generating party's registration under 40 CFR part 79, as applicable.

(v) In determining the RIN volume V_{RIN} for co-processed fuels produced from a biointermediate, RIN-generating parties must use Method B as described in paragraph (f)(4)(i)(B) of this section and calculate the renewable fraction of a fuel R using Method B of ASTM D6866 (incorporated by reference, see § 80.1468) as described in paragraph (f)(9)(ii) of this section.

* * * * *

(17) * * *

(ii) In addition to the requirements specified in paragraph (f)(17)(i) of this section, VRD–N producers may generate RINs for such fuel only in accordance with § 80.1479(a).

(18) *Requirements related to Renewable Diesel that is VRD.* RINs may only be generated for VRD in accordance with § 80.1479.

(19) *Renewable fuel produced using CCS.* The following requirements apply to producers of renewable fuel that generates RINs and achieves the greenhouse gas reductions necessary to qualify for a renewable fuel pathway by using CCS:

(i) Renewable fuel producers can only generate RINs if the lifecycle greenhouse gas emissions are below the threshold value for the applicable pathway when calculated by a method approved by EPA as part of a petition pursuant to § 80.1416.

(ii) Renewable fuel producers cannot generate RINs in a given calendar year after the applicable submittal date for the annual GHG report specified in 40 CFR 98.3 unless the renewable fuel producer has received verification that the geologic sequestration facility has satisfied all applicable reporting obligations pursuant to 40 CFR part 98, subpart RR.

(iii) If EPA is notified of a surface leak, the producer shall not generate RINs using a CCS pathway until the remediation plan submitted under § 80.1474(g) has been approved by EPA and the renewable fuel producer takes appropriate corrective action, if necessary.

(iv) Renewable fuel producers shall notify EPA if a participating geologic sequestration facility has filed a request for discontinuation under 40 CFR 98.441.

(v) Renewable fuel producers must meet all of the following conditions (in addition to any other applicable requirements):

(A) Registration requirements under § 80.1450(b)(1)(xvi).

(B) Reporting requirements under § 80.1451(b)(1)(ii)(W).

(C) Recordkeeping requirements under § 80.1454(b)(11).

* * * * *

■ 39. Section 80.1427 is amended by revising paragraph (a)(3)(ii) and adding paragraph (d) to read as follows:

§ 80.1427 How are RINs used to demonstrate compliance?

(a) * * *

(3) * * *

(ii) A cellulosic biomass-based 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.

* * * * *

(d) *Redesignation RVOs.* (1) Each party that is obligated to meet an RVO under § 80.1433 must demonstrate pursuant to § 80.1451(a)(1) that the party has retired for compliance purposes a sufficient number of RINs to meet its RVOs by the deadline specified in § 80.1433(d).

(2) In fulfillment of its RVOs, each party is subject to the provisions of paragraphs (a)(2), (a)(3), (a)(6), and (a)(8) of this section.

(3) No more than 20 percent of the RVO calculated according to a formula at § 80.1433(a) may be fulfilled using RINs generated in the year prior to the year in which the RVO was incurred.

■ 40. Section 80.1429 is amended by adding paragraph (b)(11) to read as follows:

§ 80.1429 Requirements for separating RINs from volumes of renewable fuel.

* * * * *

(b) * * *

(11) Any party that must retire RINs for redesignated neat or blended renewable fuel under § 80.1433 must separate any RINs that have been assigned to the redesignated volume.

* * * * *

■ 41. Section 80.1430 is amended by revising paragraph (c) to read as follows:

§ 80.1430 Requirements for exporters of renewable fuels.

* * * * *

(c) If the exporter knows or has reason to know that a volume of exported renewable fuel is cellulosic biomass-based 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.

* * * * *

■ 42. Section 80.1431 is amended by adding paragraph (a)(3) to read as follows:

§ 80.1431 Treatment of invalid RINs.

(a) * * *

* * * * *

(3) In the event that EPA determines that some portion of RINs generated for a batch of renewable fuel produced using a biointermediate are invalid, then all RINs generated for that batch of renewable fuel are deemed invalid, unless EPA in its sole discretion determines that some portion of these RINs are valid.

* * * * *

■ 43. Section 80.1433 is added to read as follows:

§ 80.1433 Requirements for a party who knows or has reason to know that a party to whom it is transferring a renewable fuel or a renewable fuel blend intends a use other than as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine.

(a) A party that received fuel containing any amount of renewable fuel, ethanol, butanol, biodiesel, renewable diesel, naptha, or other biomass-derived fuel, and who knows or has reason to know that a party to whom it is transferring the fuel intends a use other than as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine, must include a statement on a product transfer document it delivers to the fuel transferee at the time of fuel transfer designating the fuel for other uses, as specified in paragraph (e) of this section, and must retire an appropriate number and type of RINs according to one of the following equations, as appropriate, depending on fuel volume and type, and in accordance with paragraphs (a)(1) through (a)(4) of this section. However, this paragraph and paragraphs (b) through (d) of this

section do not apply to a party that can demonstrate through records available at the time of fuel transfer and which are maintained for a period of no less than five years that no RINs were generated for any part of the fuel or fuel blend that it transfers or that an appropriate number and type of RINs had already been retired pursuant to this section by a prior owner of the fuel or fuel blend as specified on the PTD received with the fuel or fuel blend.

(1) Except as provided in paragraph (a)(5) of this section, *Cellulosic biofuel.*

$RINRET_{CB,i} = \Sigma(VOL_k * EV_k)_i$

Where:

$RINRET_{CB,i}$ = The quantity of cellulosic biofuel RINs that must be retired for day i, in gallons.

k = A discrete volume of fuel that the party designated for use in an application other than as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine, and which the party knows or has reason to know would qualify as cellulosic biofuel if it was designated for use as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine.

VOL_k = The standardized volume of discrete volume k, in gallons, calculated in accordance with § 80.1426(f)(8) and, for fuel blends, with paragraph (c) of this section.

EV_k = The equivalence value associated with discrete volume k.

(2) Except as provided in (a)(5), *Biomass-based diesel.*

$RINRET_{BBD,i} = \Sigma(VOL_k * EV_k)_i$

Where:

$RINRET_{BBD,i}$ = The quantity of biomass-based diesel RINs that must be retired for day i, in gallons.

k = A discrete volume of fuel that the party designated for use in an application other than as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine, and which the party knows or has reason to know would qualify as biomass-based diesel if it was designated for use as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine.

VOL_k = The standardized volume of discrete volume k, in gallons, calculated in accordance with § 80.1426(f)(8) and, for fuel blends, with paragraph (c) of this section.

EV_k = The equivalence value associated with discrete volume k.

(3) *Advanced biofuel.*

$RINRET_{AB,i} = \Sigma(VOL_k * EV_k)_i$

Where:

$RINRET_{AB,i}$ = The quantity of advanced biofuel RINs that must be retired for day i, in gallons.

k = A discrete volume of fuel that the party designated for use in an application other than as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine, and which the party knows or has reason to know would qualify as advanced biofuel if it was designated for use as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine.

VOL_k = The standardized volume of discrete volume k, in gallons, calculated in accordance with § 80.1426(f)(8) and, for fuel blends, with paragraph (c) of this section.

EV_k = The equivalence value associated with discrete volume k.

(4) *Renewable fuel that does not qualify as a type of advanced biofuel.*

$RINRET_{RF,i} = \Sigma(VOL_k * EV_k)_i$

Where:

$RINRET_{RF,i}$ = The quantity of renewable fuel RINs that must be retired for day i, in gallons.

k = A discrete volume of fuel that the party designated for use in an application other than as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine, and which the party knows or has reason to know would qualify as renewable fuel (but not as a type of advanced biofuel) if it was designated for use as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine.

VOL_k = The standardized volume of discrete volume k, in gallons, calculated in accordance with § 80.1426(f)(8) and, for fuel blends, with paragraph (c) of this section.

EV_k = The equivalence value associated with discrete volume k.

(5) If the party knows or has reason to know that the fuel would qualify as cellulosic biomass-based diesel if it was designated for use as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine, it must choose either the formula specified in paragraph (a)(1) of this section or that in paragraph (a)(2) of this section to calculate the number and type of RINs that must be retired.

(b) For the purposes of calculating the number of RINs that must be retired under paragraphs (a) of this section:

(1) If the renewable fuel category and equivalence value for the discrete volume k can be determined based on its composition, then the appropriate formula and equivalence value based on such information shall be used in the calculation pursuant to paragraph (a).

(2) If the discrete volume k is known to be biomass-based diesel but the composition is unknown, the EV_k shall be 1.5.

(3) If neither the renewable fuel category nor EV_k of discrete volume k can be determined by its composition, the renewable fuel category and EV_k in the formula used in paragraph (a) of this section shall correspond to the renewable fuel designation on the PTD received by the party, or shall be 1.0, whichever value is greater.

(c) VOL_k of fuel blends shall be based on one of the following:

(1) Information from the supplier of the blend of the concentration of fuel originally produced as 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.

(d) All RIN retirements required pursuant paragraph (a) of this section shall be identified in EMTS within thirty (30) business days of the transfer of the fuel designated for use in an application other than as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine.

(e) A party that received fuel containing any amount of renewable fuel, ethanol, butanol, biodiesel, renewable diesel, naptha, or other biomass-derived fuel, and who knows or has reason to know that a party to whom it is transferring the fuel intends a use other than as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine must include a statement on a product transfer document it delivers to the fuel transferee at the time of fuel transfer that includes the following information:

(1) ''This volume of fuel is designated and intended for use other than as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine.'';

(2) ''To the extent necessary, the appropriate number and type of RINs have been retired pursuant to 40 CFR 80.1433.'';

(3) Date of RIN retirement in EMTS; and

(4) EMTS Transaction ID for the transaction in which the appropriate number and type of RINs were retired.

(f) Any volume of fuel which is designated for use in an application other than as transportation fuel, heating oil, jet fuel, or fuel for a stationary internal combustion engine cannot be redesignated as renewable fuel.

■ 44. Section 80.1434 is added to read as follows:

§ 80.1434 RIN retirement.

(a) A RIN must be retired in any of the following cases:

(1) *Demonstrate annual compliance.* 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 RVO under § 80.1407 must retire a sufficient number of RINs to demonstrate compliance with an applicable RVO.

(2) *Exported renewable fuel.* Any exporter of renewable fuel that incurs an ERVO as described in § 80.1430(a) shall retire RINs pursuant to §§ 80.1430(b) through (g) and 80.1427(c).

(3) *Redesignation.* 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 as described in § 80.1433.

(4) *RIN expiration.* Except as provided in § 80.1427(a)(7), a RIN is valid for compliance during the compliance year in which it was generated, or the following compliance year. Any RIN that is not used for compliance purposes for the compliance year in which it was generated, or for the following compliance year, will be an expired RIN. Pursuant to § 80.1431(a), an expired RIN will be considered an invalid RIN, cannot be used for compliance purposes, and must be retired as described in § 80.1431(b).

(5) *Volume error correction.* A RIN must be retired when it was based on incorrect volumes or volumes that have not been standardized to 60 °F as described in § 80.1426(f)(8).

(6) *Import volume correction.* Where the port of entry volume is the lesser of the two volumes in § 80.1466(e)(1)(i), 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 retire that amount of RINs in accordance with § 80.1466(k)(4).

(7) *Spillage or disposal of renewable fuels.* Except as provided in § 80.1432(c), in the event that a reported spillage or disposal of any volume of renewable fuel, the owner of the renewable fuel must notify any holder or holders of the attached RINs and retire a number of gallon-RINs corresponding to the volume of spilled or disposed of renewable fuel multiplied by its equivalence value.

(i) 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.

(ii) If the equivalence value for a spilled or disposed volume of renewable fuel cannot be determined, the equivalence value shall be 1.0.

(iii) 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 gallon-RINs shall be retired.

(8) *Contaminated or spoiled fuel.* In the event that contamination or spoliation of any volume of renewable fuel is reported, the owner of the renewable fuel must notify any holder or holders of the attached RINs and retire a number of gallon-RINs corresponding to the volume of contaminated or spoiled renewable fuel multiplied by its equivalence value.

(i) If the equivalence value for the contaminated or spoiled volume may be determined pursuant to § 80.1415 based on its composition, then the appropriate equivalence value shall be used.

(ii) If the equivalence value for a contaminated or spoiled volume of renewable fuel cannot be determined, the equivalence value shall be 1.0.

(iii) If the owner of a volume of renewable fuel that is contaminated or spoiled and reported establishes that no RINs were generated to represent the volume, then no gallon-RINs shall be retired.

(9) *Delayed RIN generation.* In the event that a party generated a delayed RIN as described in § 80.1426(g)(1) through (4), parties must retired RINs as described in accordance with § 80.1426(g)(5) and (6).

(10) *Invalid RIN.* In the case that a RIN is invalid as described in § 80.1431(a), the RIN will be considered invalid and must be retired as described in § 80.1431(b).

(11) *Potentially invalid RINs.* In the case that a RIN is identified as a PIR under § 80.1474(b)(1), the PIRs or replacement RINs must be retired as described in § 80.1474(b)(2) through (5).

(12) *Replacement.* As required by § 80.1431(b) or § 80.1474, any party that must replace an invalid RIN or PIR that was used for compliance must retire valid RINs to replace the invalid RINs originally used for any RVO.

(13) *Other.* Any other instance identified by the EPA.

(b) In the case that retirement of a RIN is necessary, the following provisions apply:

(1) Any party affected by such retirement must keep copies and adjust its records, reports, and compliance calculations in which the retired RIN was used.

(2) The retired RIN must be reported in the applicable reports under § 80.1451.

(3) The retired RIN must be reported in the EPA Moderated Transaction System pursuant to § 80.1452(c).

(4) Where the importer of renewable fuel is required to retire RINs under paragraph (a)(6) of this section, the importer must report the retired RINs in the applicable reports under §§ 80.1451, 80.1466(k), and 80.1466(m).

■ 45. Section 80.1440 is amended by revising the section heading and paragraph (a) and adding paragraph (f) to read as follows:

§ 80.1440 What are the provisions for blenders who handle and blend less than 250,000 gallons of renewable fuel per year or who handle renewable fuel blended for fuels under a national security exemption?

(a)(1) Renewable fuel blenders who handle and blend less than 250,000 gallons of renewable fuel per year, and who do not have one or more reported or unreported 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.

(2) Renewable fuel blenders who handle and blend renewable fuel for parties that have a national security exemption under 40 CFR part 80, or a national security exemption under paragraph (f) of this section, and who do not have one or more reported or unreported 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.

* * * * *

(f) *National security exemption.* (1) The requirements described in paragraph (b) of this section may be delegated directly upstream for transportation fuel, heating oil, or jet fuel that is produced, imported, sold, offered for sale, supplied, offered for supply, stored, dispensed, or transported for use in any of the following:

(i) Tactical military vehicles, engines, or equipment having an EPA national security exemption from emission standards under 40 CFR 85.1708, 89.908, 92.908, 94.908, 1042.635, or 1068.225.

(ii) Tactical military vehicles, engines, or equipment that are not subject to a national security exemption from vehicle or engine emissions standards as described in paragraph (f)(1)(i) of this section but, for national security purposes (for purposes of readiness for deployment overseas), need to be fueled on the same transportation fuel, heating oil, or jet fuel as the vehicles, engines,

or equipment for which EPA has granted such a national security exemption.

■ 46. Section 80.1441 is amended by adding paragraph (e)(2)(iv) and revising paragraph (h) to read as follows:

§ 80.1441 Small refinery exemption.

* * * * *

(e) * * *

(2) * * *

(iv)(A) The following information related to petitions submitted under this section that have been accepted by EPA for evaluation is not entitled to confidential treatment under 40 CFR part 2, subpart B:

(*1*) Petitioner's name.

(*2*) The name and location of the facility for which relief is requested.

(*3*) The general nature of the relief requested.

(*4*) The time period for which relief is requested.

(B) The following information related to EPA determinations on petitions submitted under this section is not entitled to confidential treatment under 40 CFR part 2, subpart B:

(*1*) Petitioner's name.

(*2*) The name and location of the facility for which relief was requested.

(*3*) The general nature of the relief requested.

(*4*) The time period for which relief was requested.

(*5*) The extent to which EPA either granted or denied the requested relief.

(C) The EPA will disclose the information specified in paragraphs (e)(2)(iv)(A) and (B) of this section on its Web site, or will otherwise make it available to interested parties, notwithstanding any claims that the information is entitled to confidential treatment under 40 CFR part 2, subpart B.

* * * * *

(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 the attention of ''RFS Program'' to the address in § 80.10(a).

■ 47. Section 80.1442 is amended by adding paragraph (h)(6) and revising paragraph (i) to read as follows:

§ 80.1442 What are the provisions for small refiners under the RFS program?

* * * * *

(h) * * *

(6)(i) The following information related to petitions submitted under this section that have been accepted by EPA for evaluation is not entitled to confidential treatment under 40 CFR part 2, subpart B:

(*A*) Petitioner's name.

(*B*) The name and location of the facility for which relief is requested.

(*C*) The general nature of the relief requested.

(*D*) The time period for which relief is requested.

(ii) The following information related to EPA determinations on petitions submitted under this section is not entitled to confidential treatment under 40 CFR part 2, subpart B:

(*A*) Petitioner's name.

(*B*) The name and location of the facility for which relief was requested.

(*C*) The general nature of the relief requested.

(*D*) The time period for which relief was requested.

(*E*) The extent to which EPA either granted or denied the requested relief.

(iii) The EPA will disclose the information specified in paragraphs (h)(6)(i) and (ii) of this section on its Web site, or will otherwise make it available to interested parties, notwithstanding any claims that the information is entitled to confidential treatment under 40 CFR part 2, subpart B.

(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 the attention of ''RFS Program'' to the address in § 80.10(a).

■ 48. Section 80.1443 is amended by revising paragraph (d)(2) to read as follows:

§ 80.1443 What are the opt-in provisions for noncontiguous states and territories?

* * * * *

(d) * * *

(2) A petition submitted under this section should be sent to the attention of ''RFS Program'' to the address in § 80.10(a).

* * * * *

■ 49. Section 80.1449 is amended by revising paragraph (d) to read as follows:

§ 80.1449 What are the Production Outlook Report requirements?

* * * * *

(d) Production outlook reports shall be sent to the attention of ''RFS Program (Production Output Reports)'' to the address in § 80.10(a).

* * * * *

■ 50. Section 80.1450 is amended by:

■ a. Revising paragraph (a);

■ b. Revising paragraphs (b) introductory text and (b)(1) introductory text;

■ c. Revising paragraphs (b)(1)(i) and (ii), (b)(1)(iv)(A)(*1*) and (*2*);

■ d. Revising paragraphs (b)(1)(v) introductory text, (b)(1)(v)(A), (b)(1)(v)(C)(*1*), (b)(1)(vii), (b)(1)(viii), (b)(1)(ix)(A), and (b)(1)(xi)(A) and (B);

■ e. Revising paragraph (b)(1)(xv) introductory text;

■ f. Adding paragraphs (b)(1)(xvi) through (xxi);

■ g. Revising paragraph (b)(2) introductory text and (b)(2)(i) and (ii);

■ h. Redesignating paragraphs (b)(2)(iii) through (vi) as paragraphs (b)(2)(v) through (viii) and adding new paragraphs (b)(2)(iii) and (iv);

■ i. Revising newly redesignated paragraph (b)(2)(vi);

■ j. Adding paragraphs (b)(2)(ix) and (x);

■ k. Revising paragraphs (d), (f), (g)(9), and (g)(11)(i);

■ l. Redesignating paragraphs (h) and (i) as paragraphs (i) and (j) and adding a new paragraph (h); and

■ m. Revising newly redesignated paragraph (i).

The revisions and additions read as follows:

§ 80.1450 What are the registration requirements under the RFS program?

(a) *Obligated parties and exporters.* Any obligated party described in § 80.1406, any exporter of renewable fuel described in § 80.1430, and any party that must retire RINs under § 80.1433, 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, an exporter of renewable fuel, or party that must retire RINs under § 80.1433 must receive EPA-issued identification numbers prior to engaging in any transaction involving RINs. Registration information 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 producer, any non-RIN-generating foreign producer, or any domestic renewable fuel producer that generates RINs, or any biointermediate producer that transfers any biointermediate for the production of a renewable fuel for RIN generation, 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 or for fuel made with their ethanol, or prior to the transfer of any biointermediate to be used in the production of a renewable fuel for which RINs may be generated. Unless otherwise specifically indicated, all the

following registration information must be submitted and accepted by EPA by July 1, 2010, or 60 days prior to the generation of RINs, whichever date comes later (for renewable fuel producers and foreign producers), or by the effective date of the final rule, or 60 days prior to the transfer of any biointermediate to be used in the production of a renewable fuel for the generation of RINs, whichever date comes later (for biointermediate producers):

(1) A description of the types of renewable fuels, ethanol, or biointermediate(s) 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, ethanol, or biointermediate(s) the renewable fuel producer or foreign ethanol producer shall also provide all the following:

(i)(A) A list of all the feedstocks and/or biointermediates the facility intends to utilize without significant modification to the existing facility.

(B) A description of the type(s) of renewable biomass that will be used as feedstock material to produce the biointermediate, if applicable.

(C) A list of the EPA company registration numbers and EPA facility registration numbers of all biointermediate producers and biointermediate production facilities that will supply biointermediates for renewable fuel or ethanol production, as appropriate.

(D) An affidavit from or contract with the biointermediate producer stating its intent to supply biointermediate to the renewable fuel producer, and certifying the renewable and non-renewable components of the biointermediate that it intends to provide to the renewable fuel producer.

(ii) A description of the facility's renewable fuel, ethanol, or biointermediate production processes, including:

(A) A process diagram with all relevant unit processes labeled, including required inputs and outputs at each step and current operating pressures and temperatures of each unit.

(B) A description of the renewable biomass or ethanol treatment process, including required inputs and outputs used at each step.

(C) A description of the mechanical, chemical, and biochemical mechanisms by which renewable biomass is processed prior to being converted to renewable fuel, ethanol, or a biointermediate.

(D) Determination of the throughput rate-limiting step in the production process and corresponding capacity of the production process.

(E) For a producer of renewable fuel seeking to generate RINs with different D codes from the same batch or co-processing renewable biomass and non-renewable biomass:

(*1*) The expected overall fuel yield, calculated as the total volume of fuel produced per batch divided by the total feedstock mass per batch on a dry weight basis.

(*2*) The Converted Fraction (CF) that will be used for generating RINs.

(*3*) Chemical analysis data supporting the calculated Converted Fraction and a discussion of the possible variability that could be expected between reporting periods per § 80.1451(b)(1)(ii)(U)(*1*). Data used to calculate the CF must be representative and obtained using an analytical method certified by a voluntary consensus standards body, or using a method that would produce reasonably accurate results as demonstrated through peer reviewed references provided to the third party engineer performing the engineering review at registration.

(*4*) A description and calculations showing how the data were used to determine the cellulosic Converted Fraction.

(F) For registrations indicating production of cellulosic biofuel (D codes 3 or 7) from feedstocks other than biogas (including through pathways in rows K, L, M, and N of Table 1 to § 80.1426), the producer must demonstrate the ability to convert cellulosic components of feedstock into fuel by providing all of the following:

(*1*) A process diagram with all relevant unit processes labeled and a designation of which unit process is capable of performing cellulosic treatment, including required inputs and outputs at each step.

(*2*) A description of the cellulosic biomass treatment process, including required inputs and outputs used at each step.

(*3*) A description of the mechanical, chemical and biochemical mechanisms by which cellulosic materials can be converted to biofuel products.

(G) For registrations indicating the production of any biointermediate, the biointermediate producer must provide all of the following:

(*1*) The company names, EPA company registration numbers, and EPA facility registration numbers of all renewable fuel producers and facilities at which each biointermediate will be used.

(*2*) Copies of documents and corresponding calculations demonstrating production capacity of each biointermediate produced at the biointermediate production facility.

(*3*) A description of the types of feedstocks that the biointermediate producer intends to process at the facility and that the facility is capable of producing without significant modifications to the existing facility. For each type of feedstocks that the biointermediate producer intends to process the biointermediate producer shall also provide all the following:

(*i*) A list of all the feedstocks the facility intends to utilize without significant modification to the existing facility.

(*ii*) A description of the type(s) of renewable biomass that will be used as feedstock material to produce the biointermediate.

(*iii*) The type of co-products produced with each type of biointermediate.

(*4*) The pathway(s) in Table 1 to § 80.1426 or the approved pathway under § 80.1416 that the biointermediate could be used in to produce renewable fuel.

* * * * *

(iv) * * *

(A) * * *

(*1*) Each type of process heat fuel used at the facility to produce the renewable fuel, ethanol, or biointermediate.

(*2*) The name and address of the company supplying each process heat fuel to the renewable fuel facility, foreign ethanol facility, or biointermediate production facility.

* * * * *

(v) For renewable fuel producers, the following records that support the facility's baseline volume and exempted baseline volume, as applicable, as defined in § 80.1401 or, for foreign ethanol facilities, their production volume:

(A) For all facilities, copies of the most recent 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 or foreign ethanol facility.

* * * * *

(C) * * *

(*1*) For all facilities, copies of documents demonstrating each facility's actual peak capacity and exempted baseline peak capacity, if applicable, as defined in § 80.1401 if the maximum rated annual volume output of renewable fuel is not specified in the air permits specified in paragraphs (b)(1)(v)(A) and (b)(1)(v)(B) of this section, as appropriate.

* * * * *

(vii)(A) For a producer of renewable fuel, a foreign producer of ethanol, or a biointermediate producer producing a biointermediate made from separated yard waste per § 80.1426(f)(5)(i)(A):

(*1*) The location of any municipal waste establishment(s) or other establishments from which the waste stream consisting solely of separated yard waste is collected.

(*2*) A plan documenting how the waste will be collected and how the renewable fuel producer or foreign ethanol producer will conduct ongoing verification that such waste consists only of yard waste (and incidental other components such as paper and plastics) that is kept separate since generation from other waste materials.

(B) For a producer of renewable fuel, a foreign producer of ethanol, or a biointermediate producer producing a biointermediate made from separated food waste per § 80.1426(f)(5)(i)(B) or from biogenic waste oils/fats/greases:

(*1*) A plan documenting the type(s) of separated food waste or biogenic waste oils/fats/greases, the type(s) of establishment the waste is collected from, how the waste will be collected, a description of ongoing verification measures that demonstrate such waste consists only of food waste (and an incidental amount of other components such as paper and plastics) or biogenic waste oils/fats/greases that is kept separate from other waste materials, and if applicable, how the cellulosic and non-cellulosic portions of the waste will be quantified.

(*2*) [Reserved]

(viii) For a producer of renewable fuel, a foreign producer of ethanol, or biointermediate producer of a biointermediate made from separated municipal solid waste per § 80.1426(f)(5)(i)(C):

(A) The location of the municipal waste establishment(s) from which the separated municipal solid waste is collected or from which material is collected that will be processed to produce separated municipal solid waste.

(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, foreign ethanol producer, or biointermediate producer.

(*2*) Identification of available recycling technology and practices that are appropriate for removing recycling materials from the waste stream by the fuel producer, foreign ethanol producer, or biointermediate producer.

(*3*) Identification of the technology or practices selected for implementation by the fuel producer, foreign ethanol producer, or biointermediate producer 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.

(ix) * * *

(A) For a producer of ethanol from grain sorghum or a foreign ethanol producer making product from grain sorghum and seeking to have it sold as renewable fuel after addition of ethanol denaturant, provide a plan that has been submitted and accepted by U.S. EPA that includes the following information:

* * * * *

(xi) * * *

(A) An affidavit from the producer of the fuel oil meeting paragraph (2) of the definition of heating oil in § 80.1401 stating that the fuel oil for which RINs have been generated will be sold for the purposes of heating or cooling interior spaces of homes or buildings to control ambient climate for human comfort, and no other purpose.

(B) Affidavits from the final end user or users of the fuel oil stating that the fuel oil meeting paragraph (2) of the definition of heating oil in § 80.1401 is being used or will be used for purposes of heating or cooling interior spaces of homes or buildings to control ambient climate for human comfort, and no other purpose, and acknowledging that any other use of the fuel oil would violate EPA regulations and subject the user to civil and/or criminal penalties under the Clean Air Act.

* * * * *

(xv) For a producer of cellulosic biofuel made from crop residue, a foreign ethanol fuel producer from crop residue and seeking to have it sold after denaturing as cellulosic biofuel, or a biointermediate producer producing a biointermediate for use in the production of a cellulosic biofuel made from crop residue, provide all the following information:

* * * * *

(xvi) For a producer of renewable fuel that achieves the greenhouse gas reductions necessary to qualify for a renewable fuel pathway by using CCS:

(A) A CCS plan that includes each of the following:

(*1*) A statement of affirmation that the owner or operator of the sequestration facility will inject CO_2 underground from the renewable fuel production process under 40 CFR part 98, subpart RR. The MRV plan must be approved pursuant to 40 CFR 98.448 prior to approval of registration under the RFS program.

(*2*) A statement of affirmation that the renewable fuel producer is using the methodology approved under § 80.1416 for calculating lifecycle greenhouse gas emissions associated with renewable fuel produced and that the lifecycle greenhouse gas emissions associated with renewable fuel produced are no greater than a specified emissions value.

(*3*) If the CO_2 is or will be transferred offsite to a sequestration facility, a contract or contracts between the renewable fuel producer and sequestration facility (and any intermediate or necessary parties) demonstrating the sale of CO_2 from the fuel producer to the sequestration facility and all of the following sequestration facility duties:

(*i*) A duty to inject the CO_2 for geologic sequestration.

(*ii*) A duty to help the renewable fuel producer develop a remediation plan for the leaked CO_2 to be submitted to EPA within 30 days of EPA being notified by the renewable fuel producer of the surface leak, and which provides information related to the date(s) the surface leak occurred, the GHGRP facility identification number of the sequestration facility, a detailed description of how the leak occurred, the amount of CO_2 that leaked, and a description of how the leak would be remediated.

(*iii*) A duty to notify the renewable fuel producer of CO_2 surface leaks within 24 hours of detection.

(*iv*) A duty to certify to the renewable fuel producer annually and within 30 days of submission to EPA that the geologic sequestration facility has submitted to EPA all reports pursuant to 40 CFR part 98, subpart RR.

(*v*) A duty for the geologic sequestration facility to notify the renewable fuel producer if the geologic sequestration facility ends sequestration operations.

(*vi*) A duty for the geologic sequestration facility to notify the renewable fuel producer if the geologic sequestration facility submits a request pursuant to 40 CFR 98.441 for discontinuation of reporting under 40 CFR part 98, subpart RR.

(*vii*) Acknowledgement of the geologic sequestration facility's duty to retain, for at least five years, all records required by the applicable provisions of the UIC

program under Part 146, Subpart H, and the GHGRP under 40 CFR 98.3.

(B) A description of the CO_2 capture and sequestration process. If the CO_2 is transferred to a sequestration facility after capture, a description of the transfer process must be included. The transfer process description must include the mode of transport (*e.g.,* whether CO_2 is transferred by pipeline or by container), as well as the annual quantity of CO_2 transferred.

(C) If a producer of renewable fuel that achieves the greenhouse gas reductions necessary to qualify for a renewable fuel pathway by using CCS changes the geologic sequestration facility or if the participating geologic sequestration facility ends sequestration operations, the renewable producer shall update their registration under paragraph (d)(1) of this section.

(D) Any additional information EPA may request, as appropriate.

(xvii) For a producer of renewable fuel that is produced by co-processing renewable biomass and non-renewable feedstocks simultaneously to produce a fuel that is partially renewable:

(A) A description of how the renewable content of the partial renewable fuel will be determined after co-processing.

(B) The method the producer will use to calculate the number of gallon-RINs on a per-batch basis as described in § 80.1426(f)(4).

(C) Any additional information EPA may request, as appropriate.

(xviii) For a producer of cellulosic biofuel made from short-rotation willow or short-rotation hybrid poplar:

(A) A list of all the species and hybrids the producer intends to utilize as short-rotation willow or short-rotation hybrid poplar.

(B) A written justification that explains why each feedstock a producer lists according to paragraph (b)(1)(xviii)(A) of this section meets the definition of ''short-rotation willow'' or ''short-rotation hybrid poplar'' per § 80.1401.

(C) Records demonstrating that the short-rotation willow or short-rotation hybrid poplar feedstocks will only be sourced from locations that qualify as a tree plantation as defined in § 80.1401, including documentation that the land was cleared prior to December 19, 2007, and actively managed on December 19, 2007.

(D) Contracts and affidavits from the party or parties supplying the producer with short-rotation willow or short-rotation hybrid poplar that the feedstocks supplied to the producer shall be grown only at locations that qualify as a tree plantation and for which records required pursuant to paragraph (b)(1)(xviii)(C) of this section have been provided to the producer.

(xix) For VRD–N producers, submit all relevant information in § 80.1426(f)(17) and the following:

(A) Letters of approval from EPA for a Clean Alternative Fuel Conversion under 40 CFR part 85, subpart F, for all intended transferees of VRD–N.

(B) Copies of contracts with the intended fuel transferee, or affidavits signed by a responsible officer of the intended transferee, together with other documentation that EPA may specify on a case-by-case basis that demonstrate that the contracted end users have converted vehicles and engines under an EPA-approved Clean Alternative Fuel Conversion under 40 CFR part 85, subpart F.

(xx) A responsible corporate officer, or an official in an equivalent position, of the renewable fuel producer, foreign ethanol producer, or biointermediate producer in submitting its registration materials to EPA under this section, must include, sign, and date the following certification: ''I certify under penalty of law that the attached registration materials were developed, received, reviewed, and responded to under my direction or supervision by qualified personnel in accordance with the requirements of 40 CFR part 80. Based on my personal knowledge and experience, or inquiry of personnel involved in developing the registration materials, the information submitted herein is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.''

(xxi) For each facility, the renewable fuel producer, foreign ethanol producer, or biointermediate producer shall make the following information readily accessible on the facility's publicly-available Web site (if such Web site exists) as a public notification:

(A) The name of the independent third-party engineer that conducted the engineering review under paragraph (b)(2) of this section.

(B) A summary of how the independent third-party engineer meets the competency and independent criteria.

(C) The independent third-party engineer's and producer's signed certification statements as required under paragraphs (b)(1)(xx) and (b)(2)(iii) of this section.

(2) *Engineering review.* An independent third-party engineer shall conduct an engineering review that verifies the information provided pursuant to paragraph (b)(1) of this section and submit a written report that demonstrates the verification of the information provided pursuant to paragraph (b)(1) of this section. The engineering review and written report shall be based upon a site visit occurring while the facility is producing renewable fuel, ethanol, or a biointermediate, 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 engineer evaluated the accuracy of the information provided, state whether the independent third-party engineer agrees with the information provided, and identify any exceptions between the independent third-party engineer's findings and the information provided.

(i) The engineering review and written report required under this section must be conducted by a professional engineer, as specified in paragraph (b)(2)(i)(A) or (B) of this section, as applicable, who is an independent third-party engineer. The verifying independent third-party engineer must be:

(A) For a domestic renewable fuel production facility or a domestic biointermediate production facility: A professional engineer who is licensed by an appropriate state agency in the United States and trained or certified in proper verification techniques, with professional work experience in the chemical engineering field or related to renewable fuel production.

(B) For a foreign renewable fuel production facility, a foreign ethanol production facility, or a foreign biointermediate production facility: An engineer who is a foreign equivalent to a professional engineer licensed in the United States and trained or certified in proper auditing techniques, with professional work experience in the chemical engineering field or related to renewable fuel production.

(ii) The independent third-party engineer and its contractors and subcontractors must be registered with EPA and meet all applicable requirements under paragraph (h) of this section.

(iii) The independent third-party engineer shall sign, date, and submit to EPA with the written report the following conflict of interest statement: ''I certify that the engineering review and written report required and submitted under 40 CFR 80.1450(b)(2) was conducted and prepared by me, or under my direction or supervision, in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information

upon which the engineering review was conducted and the written report is based. I further certify that the engineering review was conducted and this written report was prepared pursuant to the requirements of 40 CFR part 80 and all other applicable auditing, competency, independence, impartiality, and conflict of interest standards and protocols. Based on my personal knowledge and experience, and inquiry of personnel involved, the information submitted herein is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.''

(iv)(A) To verify the accuracy of the information provided in paragraph (b)(1)(ii) of this section, the independent third-party engineer shall conduct independent calculations of the throughput rate-limiting step in the production process, take digital photographs with date and geographic coordinates stamps of all process units depicted in the process flow diagram during the site visit, and certify that all process unit connections are in place and functioning based on the site visit.

(B) To verify the accuracy of the information in paragraph (b)(1)(iii) of this section, the independent third-party engineer shall obtain independent documentation from parties in contracts with the producer for any co-product sales or disposals.

(C) To verify the accuracy of the information provided in paragraph (b)(1)(iv) of this section, the independent third-party engineer shall obtain independent documentation from all process heat fuel suppliers of the process heat fuel supplied to the facility.

(D) To verify the accuracy of the information provided in paragraph (b)(1)(v) of this section, the independent third-party engineer shall conduct independent calculations of the Converted Fraction that will be used to generate RINs.

* * * * *

(vi) The renewable fuel producer, foreign ethanol producer, or biointermediate producer must retain records of the review and verification, as required in § 80.1454(b)(6) or (n)(4), as applicable.

* * * * *

(ix) The independent third-party engineer must provide to EPA documentation demonstrating that a site visit, as described in paragraph (b)(2) of this section, occurred. Such documentation shall include digital photographs with date and geographic coordinates stamps of the process units taken during the site visit and a description of what is depicted in the photographs.

(x) Reports required under paragraph (b)(2) of this section shall be electronically submitted directly to EPA by an independent third-party engineer using forms and procedures established by EPA.

* * * * *

(d) *Registration updates.* (1)(i)(A) Any producer of renewable fuel or any foreign ethanol producer who makes changes to their facility that will allow them to produce renewable fuel that is not reflected in the producer's registration information on file with EPA must update their registration information and submit a copy of an updated independent third-party engineering review on file with EPA at least 60 days prior to producing the new type of renewable fuel.

(B) Any biointermediate producer who makes changes to their biointermediate production facility that will allow them to produce a biointermediate for use in the production of a renewable fuel that is not reflected in the biointermediate producer's registration information on file with EPA must update their registration information and submit a copy of an updated independent third-party engineering review on file with EPA at least 60 days prior to producing the new biointermediate for use in the production of the renewable fuel.

(ii) The producer may also submit an addendum to the independent third-party engineering review on file with EPA provided the addendum meets all the requirements in paragraph (b)(2) of this section and verifies for EPA the most up-to-date information at the producer's existing facility.

(2)(i) Any producer of renewable fuel or any foreign ethanol producer who makes any other changes to a facility that will affect the producer's registration information but will 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.

(ii)(A) Any biointermediate producer who makes any other changes to a biointermediate production facility that will affect the biointermediate producer's registration must update their registration information 7 days prior to the change.

(B) All biointermediate producers must update their registration information on file with EPA at least 60 days prior to transferring any biointermediate for use in the production of a renewable fuel produced by a renewable fuel producer not contained in their registration information on file with EPA.

(3) All producers of renewable fuel, foreign ethanol producers, and biointermediate producers must update registration information and submit an updated independent third-party engineering review according to the schedule in paragraph (d)(3)(i) or (ii) of this section, and including the information specified in paragraph (d)(3)(iii) or (iv) of this section, as applicable:

(i) For all producers of renewable fuel and foreign ethanol producers registered in calendar year 2010, the updated registration information and independent third-party engineering review shall be submitted to EPA by January 31, 2013, and by January 31 of every third calendar year thereafter; or

(ii) For all producers of renewable fuel, foreign ethanol producers, and biointermediate producers registered in any calendar year after 2010, the updated registration information and independent third-party engineering review shall be submitted to EPA by January 31 of every third calendar year after the first year of registration.

(iii) For all producers of renewable fuel and foreign ethanol producers, in addition to conducting the engineering review and written report and verification required by paragraph (b)(2) of this section, the updated independent third-party engineering review shall include a detailed review of the renewable fuel producer's calculations used to determine VRIN 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.

(iv) For biointermediate producers, in addition to conducting the engineering review and written report and verification required by paragraph (b)(2) of this section, the updated independent third-party engineering review shall include a detailed review of the biointermediate producer's calculations used to determine the renewable biomass and cellulosic renewable biomass proportions, as required to be reported to EPA under § 80.1451(i)(2), of a representative sample of batches of each type of biointermediate produced since the last registration. The representative sample shall be selected in accordance with the sample size guidelines set forth at § 80.127.

(v) Renewable fuel producers claiming an exemption specified in

§ 80.1403(b) or (c) do not need to resubmit air permits as specified in paragraph (b)(1)(v)(B) of this section or exempted baseline peak capacity as specified in paragraph (b)(1)(v)(C)(*1*) of this section. Air permits and documentation specified in paragraphs (b)(1)(v)(B) and (C) of this section must be kept as specified in § 80.1454(e).

(4) *Facility ownership changes.* (i) Parties that purchase, acquire, or otherwise obtain a facility that has not been operational for more than six months must submit a new registration for the facility under paragraph (b) of this section.

(ii) Producers of renewable fuel that purchase, acquire, or otherwise obtain a facility that has been operational within the previous six months and was previously registered to a different renewable fuel producer under paragraph (b) of this section, must meet the following requirements:

(A) The following information must be provided to EPA:

(*1*) All applicable information described in paragraph (b)(1) of this section.

(*2*) An engineering review as described in paragraph (b)(2) or (d)(1) of this section.

(*3*) A letter, signed by both a responsible corporate officer from the renewable fuel producer that previously registered the facility and the renewable fuel producer that currently owns or will own the facility that details the effective date of the transfer of ownership of the facility and summarizes any changes to the registration information provided to EPA pursuant to paragraph (b) of this section for the facility.

(*4*) Documents that demonstrate proof of sale or ownership of the facility.

(B) The documents and information described in paragraphs (b)(4)(ii)(A)(*1*) through (*3*) of this section must be provided to EPA no later than 60 days prior to the effective date of the transfer of ownership for a facility.

(C) The document(s) described in paragraph (b)(4)(ii)(A)(*4*) of this section must be provided to EPA within 3 business days of the effective date of the transfer of ownership.

(iii) The renewable fuel producer that is acquiring the previously registered facility under paragraph (d)(4)(ii) of this section shall not generate RINs under § 80.1426 until EPA accepts all applicable registration information.

(iv) For renewable fuel producers that have been approved by EPA to transfer ownership of a facility under paragraph (d)(4)(ii) of this section, those parties may, at EPA's sole discretion, be allowed to retroactively generate RINs pursuant to § 80.1426(f) and assign those RINs to batches of renewable fuel pursuant to § 80.1452(e) back to the effective date of the transfer of ownership for the facility, if EPA determines that the renewable fuel producer met all applicable requirements under paragraphs (b) and (d) of this section for the facility at the effective date of the transfer of ownership for the facility.

(v) The previous renewable fuel producer that owned the facility shall not generate RINs pursuant to § 80.1426 or assign RINs to a batch of renewable fuel for a facility pursuant to § 80.1452(b) on or after the effective date of the transfer of ownership for the facility.

(vi) For purposes of this section, the effective date of the transfer of ownership for a facility shall be the date that the renewable fuel producer that is acquiring the previously registered facility purchased the facility, took custody of the facility, or began operating the facility, whichever is later.

* * * * *

(f)(1) Except as provided in paragraph (f)(2) of this section, all documents required for a new registration of any facility claiming an exemption under § 80.1403(c) or (d), and all documents required to support requests by registered facilities to amend registrations to increase the baseline volume of fuel qualifying for an exemption under § 80.1403(c) or (d), must be received by EPA no later than November 16, 2016.

(2) Paragraph (f)(1) of this section does not limit the ability of a renewable fuel producer to newly register with EPA as a result of the transfer of ownership of a facility that was previously registered to another renewable fuel producer, provided that such producer shall be subject to the same limitations as the previous owner regarding the baseline volume for which an exemption under § 80.1403(c) or (d) apply.

(g) * * *

(9) *Registration updates.* (i) Any independent third-party auditor who makes changes to its quality assurance plan(s) that will allow it to audit new renewable fuel production facilities, as defined in § 80.1401, that is not reflected in the independent third-party auditor's registration information on file with the EPA must update its registration information and submit a copy of an updated QAP on file with the EPA at least 60 days prior to producing the new type of renewable fuel.

(ii) Any independent third-party auditor who makes any changes other than those specified in paragraphs (g)(9)(i), (iii), and (iv) of this section that will affect the third-party auditor's registration information must update its registration information 7 days prior to the change.

(iii) Independent third-party auditors must update their QAPs at least 60 days prior to verifying RINs generated by a renewable fuel facility for a pathway not covered in the independent third-party auditor's QAPs.

(iv) Independent third-party auditors must update their QAPs at least 60 days prior to verifying RINs generated by any renewable fuel facility not identified in the independent third-party auditor's existing registration.

* * * * *

(11) * * *

(i) The Administrator may issue a notice of intent to revoke the registration of a third-party auditor if the Administrator determines that the auditor has failed to fulfill any requirement of this subpart, including, but not limited to, the failure to fulfill QAP services. The notice of intent shall include an explanation of the reasons for the proposed revocation.

* * * * *

(h) *Independent third-party engineers.* Each independent third-party engineer who conducts an independent third-party engineering review must register with EPA as an independent third-party engineer and receive an EPA issued identification number prior to conducting an engineering review pursuant to paragraph (b)(2) or (d)(1) of this section. Each independent third-party engineer must directly provide to EPA all of the following registration materials at least 30 days prior to conducting an engineering review pursuant to paragraph (b)(2) or (d)(1) of this section:

(1) Documentation, as described in paragraph (b)(2)(i)(A) and (B) of this section, for every professional engineer who will provide a third-party engineering review.

(2) Documentation of the independent third-party engineer's training or certification in proper verification techniques, with professional work experience in the chemical engineering field or related to renewable fuel production.

(3) Documentation demonstrating that every independent third-party engineer who conducts an independent third-party engineering review pursuant to paragraph (b)(2) or (d)(1) of this section is, as required, maintaining professional liability insurance, as defined in 31 CFR 50.5(q). Independent third-party engineers shall use insurance providers

that possess a financial strength rating in the top four categories from either Standard & Poor's or Moody's (*i.e.,* AAA, AA, A, or Aa, A, or Baa for Moody's). Independent third-party engineers shall disclose the level of professional liability insurance they possess when entering into contracts to provide independent third-party engineering review services.

(4) Documentation of the name, address, company, and facility identification numbers of all renewable fuel producers, foreign ethanol producers, and biointermediate producers that the independent third-party engineer intends to conduct an independent third-party engineering review for under paragraph (b)(2) or (d)(1) of this section during the current calendar year.

(5) An affidavit, or electronic consent, from each domestic renewable fuel producer and biointermediate producer stating its intent to have the independent third-party engineer conduct an independent third-party engineering review of any of the renewable fuel producer, foreign ethanol producer, or biointermediate producer's facilities during the current calendar year.

(6) An affidavit stating that the independent third-party engineer, its affiliates, contractors, and subcontractors are independent of the renewable fuel producer, foreign ethanol producer, or biointermediate producer. For an independent third-party engineer or its affiliates, contractors, or subcontractors to be considered independent under this section, all of the following conditions must be met:

(i) The independent third-party engineer shall act impartially when performing all activities under this section.

(ii) The independent third-party engineer shall not be owned or operated by the renewable fuel producer, foreign ethanol producer, or biointermediate producer, or any subsidiary or employee of these producers.

(iii) The independent third-party engineer shall not be owned or operated by an obligated party or any subsidiary or employee of an obligated party as defined in § 80.1406.

(iv) The independent third-party engineer shall not have conducted research, development, design, construction, or consulting for the renewable fuel producer, foreign ethanol producer, or biointermediate producer within the last three years. For purposes of this requirement, consulting does not include performing or participating in the engineering review (including the verification activities) pursuant to this section.

(v) The independent third-party engineer shall not provide other business or consulting services to any renewable fuel producer, foreign ethanol producer, or biointermediate producer, including advice or assistance to implement the findings or recommendations of the written report described in paragraph (b)(2) of this section, for a period of at least three years following submission of the final written report.

(vi) The independent third-party engineer shall ensure that all personnel involved in the engineering review activities under this section do not accept employment with the owner or operator of the renewable fuel producer, foreign ethanol producer, or biointermediate producer for a period of at least three years following submission of the final written report. For the purposes of this requirement, employment does not include performing or participating in the engineering review activities pursuant to paragraph (b)(2) of this section.

(vii) The independent third-party engineer shall have written policies and procedures to ensure that the independent third-party engineer and all personnel under the independent third-party engineer's direction or supervision comply with the competency, independence, and impartiality requirements of this section.

(viii) For engineering review services as described in paragraph (b)(2) of this section provided to a biointermediate producer, the independent third-party engineer shall not be owned or operated by any renewable fuel producer listed in paragraph (b)(1)(xv) of this section and the independent third-party engineer shall be free from any interest in any renewable fuel producer listed in paragraph (b)(1)(xv) of this section. Any renewable fuel producer listed in paragraph (b)(1)(xv) of this section shall be free from any interest in the independent third-party engineer's business.

(ix) The independent third-party engineer shall not perform an attest engagement under § 80.1464 for the renewable fuel producer, foreign ethanol producer, or biointermediate producer within three years of the date that the independent third-party engineer conducted the independent third-party engineering review at that same facility pursuant to paragraph (b)(2) or (d)(1) of this section.

(x) The independent third-party engineer shall not be a QAP auditor, as described in § 80.1471, or perform QAP audits, as described in § 80.1472, for the renewable fuel producer, foreign ethanol producer, or biointermediate producer in which it performed an independent third-party engineering review pursuant to paragraph (b)(2) or (d)(1) of this section.

(xi) The independent third-party engineer shall not own, buy, sell, or otherwise trade RINs.

(xii) The independent third-party engineer shall be free from any interest or the appearance of any interest in the renewable fuel producer, foreign ethanol producer, or biointermediate producer's business and receive no financial benefit from the outcome of the registration, apart from receipt of payment for the independent third-party engineering review services under paragraph (b)(2) of this section.

(xiii) The renewable fuel producer, foreign ethanol producer, or biointermediate producer shall be free from any interest or the appearance of any interest in the independent third-party engineer's business.

(xiv) The independent third-party engineer must not be 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.

(7) Documentation with the name and contact information for each person employed, affiliated with, or under contract or subcontract, by the independent third-party engineer to conduct independent third-party engineering reviews.

(8) Documentation of the independent third-party engineer's written policies and procedures to ensure that the independent third-party engineer and all affiliates, contractors, and subcontractors under the professional engineer's direction or supervision comply with the competency, independence, and impartiality requirements of this section.

(9) The independent third-party engineer shall sign, date, and submit to EPA with the registration the following conflict of interest statement: ''I certify under penalty of law that the registration materials submitted to EPA were developed, received, reviewed, and responded to under my direction or supervision by qualified personnel in accordance with the requirements of 40 CFR part 80. Based on my personal knowledge and experience, or inquiry of personnel involved in developing the registration materials, the information submitted herein is true, accurate, and complete. I am aware that there are

significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.''

(10) *Registration updates.* Any independent third-party engineer who has any changes to the information in paragraphs (h)(1) through (9) of this section must update their registration information seven days prior to the change.

(11) *Revocation of registration.* (i) The Administrator may issue a notice of intent to revoke the registration of an independent third-party engineer if the Administrator determines that the independent third-party engineer has failed to fulfill any requirement of this subpart, including, but not limited to, the submittal to EPA of an inaccurate independent third-party engineering review. The notice of intent shall include an explanation of the reasons for the proposed revocation.

(ii) Within 60 days of receipt of the notice of intent to revoke, the independent third-party engineer may submit written comments concerning the notice, including, but not limited to, a demonstration of compliance with the requirements that provide the basis for the proposed revocation. The Administrator shall review and consider any such submission before taking final action concerning the proposed revocation.

(iii) If the independent third-party engineer fails to respond in writing, within 60 days, to the notice of intent to revoke, the revocation shall become final by operation of law and the Administrator shall notify the independent third-party engineer of such revocation.

(i) *Deactivation of company, third-party auditor, or third-party engineer registration.* (1) EPA may deactivate the registration of a company, third-party auditor, or third-party engineer, using the process in paragraph (i)(2) of this section, if any of the following criteria are met:

(i) The company has reported no activity in EMTS for twenty-four consecutive months.

(ii) The company, third-party auditor, or independent third-party engineer has failed to comply with the registration requirements of this section.

(iii) The company, third-party auditor, or independent third-party engineer has failed to submit any required notification or report within 30 days of the required submission date under this subpart.

(iv) Any attest engagement required under § 80.1464 has not been received within 30 days of the required submission date.

(v) The company, third-party auditor, or independent third-party engineer fails to pay a penalty or to perform any requirements under the terms of a court order, administrative order, consent decree, or administrative settlement between the company and EPA.

(vi) The company, third-party auditor, or independent third-party engineer submits false or incomplete information.

(vii) The company, third-party auditor, or independent third-party engineer denies EPA access or prevents EPA from completing authorized activities under sections 114 or 208 of the Clean Air Act despite presenting a warrant or court order. This includes a failure to provide reasonable assistance.

(vii) The company, third-party auditor, or independent third-party engineer fails to keep or provide the records required in this section.

(ix) The company, third-party auditor, or independent third-party engineer otherwise circumvents the intent of the Clean Air Act or of this subpart.

(x) If a company has registered a facility using CCS technology pursuant to § 80.1450(b)(xvi) and there is an occurrence of surface leakage of any CO_2 emissions at the geologic sequestration facility.

(2) Except as provided in paragraph (i)(3) of this section, EPA will use the following process whenever it decides to deactivate the registration of a company, third-party auditor, or independent third-party engineer:

(i) EPA will provide written notification to the responsible corporate officer identifying the reasons or deficiencies of why EPA intends to deactivate the company's registration. The company will have fourteen calendar days from the date of the notification to correct the deficiencies identified or explain why there is no need for corrective action.

(ii) If the basis for EPA's notice of intent to deactivate registration is the absence of EMTS activity, a stated intent to engage in activity reported through EMTS will be sufficient to avoid deactivation of registration.

(iii) If the company does not respond, does not correct identified deficiencies, or does not provide an adequate explanation regarding why such correction is not necessary within the time allotted for response, EPA may deactivate the company's registration without further notice to the party.

(3) In instances of willfulness or those in which public health, interest, or safety requires otherwise, EPA may deactivate the registration of the company, third-party auditor, or independent third-party engineer without any notice to the party. EPA will provide written notification to the responsible corporate officer identifying the reasons EPA deactivated the registration of the company, third-party auditor, or independent third-party engineer.

(4) Impact of registration deactivation:

(i) A company whose registration is deactivated shall still be liable for violation of any requirements of this subpart.

(ii) A company whose registration is deactivated will not be listed on any public list of actively registered companies that is maintained by EPA.

(iii) A company whose registration is deactivated will not have access to any of the electronic reporting systems associated with the renewable fuel standard program, including the EPA Moderated Transaction System (EMTS).

(iv) A company whose registration is deactivated must submit any corrections of deficiencies to EPA on forms, and following policies, established by EPA.

(v) If a company, third-party auditor, or independent third-party engineer whose registration has been deactivated wishes to re-register, they may seek to do so by submitting a new registration pursuant to the requirements in paragraphs (a) through (c), (e), and (g) of this section, as applicable.

* * * * *

■ 51. Section 80.1451 is amended by:

■ a. Revising paragraph (a) introductory text;

■ b. Redesignating paragraphs (a)(1)(v) through (xviii) as paragraphs (a)(1)(viii) through (xxi) and adding new paragraphs (a)(1)(v) through (vii);

■ c. Revising newly redesignated paragraphs (a)(1)(viii), (ix), (xi), and (xix);

■ d. Revising paragraphs (b) introductory text, (b)(1)(ii)(D), (I), (K), and (L);

■ e. Redesignating paragraph (b)(1)(ii)(W) as paragraph (b)(1)(ii)(X) and adding a new paragraph (b)(1)(ii)(W);

■ f. Revising paragraphs (g)(1)(ii)(D) and (I) and (g)(2)(vii); and

■ g. Redesignating paragraphs (i) and (j) as paragraphs (k) and (l) and adding new paragraphs (i) and (j).

The revisions and additions read as follows:

§ 80.1451 What are the reporting requirements under the RFS program?

(a) *Obligated parties and exporters.* Any obligated party described in § 80.1406, exporter of renewable fuel described in § 80.1430, or party that must retire RINs under § 80.1433, must submit to EPA reports according to the schedule, and containing all the information, that is set forth in this paragraph (a).

(1) * * *

(v) Beginning with the 2017 compliance year and every year thereafter, the production volume and import volume for each of the products listed in § 80.1407(c) and (e) for the reporting year.

(vi) Beginning with the 2017 calendar year and every year thereafter, the volume of renewable fuel blended into gasoline or diesel fuel as described in § 80.1407(b) and (d) for the reporting year.

(vii) Beginning with the 2017 calendar year and every year thereafter, the production volume and import volume for heating oil, as defined in § 80.2(ccc). Volumes of renewable heating oil for which RINs were generated under § 80.1426 shall not be included.

(viii) The combined total production volume and import volume as calculated in § 80.1407(b) and (d) for the reporting year.

(ix) The RVOs, as defined in § 80.1427(a) for obligated parties, § 80.1430(b) for exporters of renewable fuel, and § 80.1433(a) for parties that must retire RINs under § 80.1433, for the reporting year.

* * * * *

(xi) 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 biomass-based diesel), retired for compliance.

* * * * *

(xix) 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 biomass-based diesel), retired for compliance that are invalid as defined in § 80.1431(a).

* * * * *

(b) *Renewable fuel producers (domestic and foreign) and importers.* Any domestic producer or importer of renewable fuel who generates RINs, or any RIN-generating foreign producer must submit to EPA reports according to the schedule, and containing all of the following information:

(1) * * *

(ii) * * *

(D) The importer EPA facility registration number and foreign renewable fuel producer company registration number, if applicable.

* * * * *

(I) The volume of ethanol denaturant and applicable equivalence value of each batch.

* * * * *

(K) The types and quantities of feedstocks and biointermediates used.

(L) The process(es), feedstock(s), and biointermediate(s) used and proportion of renewable volume attributable to each process and feedstock.

* * * * *

(W) Renewable fuel producers that achieve the greenhouse gas reductions necessary to qualify for a renewable fuel pathway by using CCS as part of the renewable fuel production process shall report to EPA in accordance with the applicable requirements of 40 CFR part 98, subpart PP, and shall also meet the following requirements:

(*1*) Calculated lifecycle greenhouse gas emissions value for each batch of fuel produced using a method approved by EPA for each batch of renewable fuel produced.

(*2*) The facility identification number associated with the 40 CFR part 98, subpart RR, annual GHG report of the geologic sequestration facility and the GHGRP facility identification number of the renewable fuel facility.

(*3*)(*i*) If the CO_2 injection occurs onsite, report that onsite injection is occurring and affirm that they are reporting in accordance with the requirements of 40 CFR part 98, subpart RR, and that no surface leaks that could cause the lifecycle greenhouse gas emissions to exceed the threshold value required for the approved pathway under § 80.1416 occurred during the appropriate compliance period.

(*ii*) If the CO_2 injection occurs offsite, report that injection is occurring offsite and affirm that the captured CO_2 is transferred to a facility or facilities that reports in accordance with 40 CFR part 98, subpart RR and that no surface leaks that could cause the lifecycle greenhouse gas emissions to exceed the threshold value required for the approved pathway under § 80.1416 occurred during the appropriate compliance period.

* * * * *

(g) * * *

(1) * * *

(ii) * * *

(D) The importer EPA facility registration number and foreign renewable fuel producer company registration number, if applicable.

* * * * *

(I) The volume of ethanol denaturant and applicable equivalence value of each verified batch.

* * * * *

(2) * * *

(vii) A list of all facilities including the EPA's company and facility registration numbers audited under an approved quality assurance plan under § 80.1469, the date the independent third-party auditor conducted the on-site visit and audit, the name(s) of the professional engineer(s) that conducted or oversaw the on-site visit and audit, and whether the facility has a remote monitoring system.

* * * * *

(i) *Biointermediate producers and importers.* Any biointermediate producer or biointermediate importer must submit to EPA reports according to the schedule, and containing all of the following information:

(1) Beginning on the effective date of the final rule, biointermediate batch production reports for each biointermediate production facility shall be submitted according to the schedule specified in paragraph (f)(2) of this section.

(2) The biointermediate batch production reports shall include all the following information for each batch of biointermediate produced or imported, where ''batch'' means a discrete quantity of biointermediate produced or imported and assigned a unique batch number per § 80.1475(h):

(i) The biointermediate producer's name.

(ii) The biointermediate producer's EPA company registration number.

(iii) The biointermediate producer's EPA facility registration number.

(iv) The applicable reporting period.

(v) The production date and batch number of each batch.

(vi) The adjusted cellulosic content of each batch, as defined in § 80.1401, and certification that the cellulosic content of each batch was derived from cellulose, hemicellulose, or lignin that was derived from renewable biomass, as defined in § 80.1401.

(vii) The volume of each batch produced.

(viii) The types and quantities of feedstocks used.

(ix) The renewable fuel type(s) each batch of biointermediate was designated to be used as a feedstock material for.

(x) The EPA company registration number and EPA facility registration number for each renewable fuel producer or foreign renewable fuel producer that received title to each batch.

(xi) The percentage of each batch of biointermediate that met the definition of renewable feedstock and certification that this portion of the batch of biointermediate was derived from renewable biomass, as defined in § 80.1401.

(xii) The process(es) and feedstock(s) used and proportion of biointermediate volume attributable to each process and feedstock.

(xiii) The type of co-products produced with each batch.

(xiv) The quantity of co-products produced in each quarter.

(xv) Any additional information the Administrator may require.

(j) The following tables set forth EPA determinations regarding the extent to which listed data elements from reports submitted pursuant to this section are eligible for treatment as confidential business information.

TABLE 2–80.1451—EMTS DATA SUBMITTED IN QUARTERLY ACTIVITY REPORTS

Field name	CBI
a—Report Number	N
b—Report Type	N
c—CBI	N
d—Report Date	N
e—Company ID	Y
f—Company Name	Y
g—Compliance Period Code	N
h—Compliance Basis/Facility ID	
h.1—Compliance Basis	N
h.2—Facility ID	Y
i—Compliance Year	Y
j—RIN Status (assigned/separated)	Y
k—Volume of renewable fuel owned at the end of the quarter	
k.1—If company identifying information present	Y
k.2.—If company identifying information absent	N
l—Prior-year RFS2 RINs owned at the start of the quarter in EMTS	Y
m—Prior-year RFS2 RINs purchased in EMTS	Y
n—Prior-year RFS2 RINs sold in EMTS	Y
o—Prior-year RFS2 RINs separated in EMTS	Y
p—Prior-year RFS2 RINs retired in EMTS	Y
q—Prior-year RFS2 RINs owned at the end of the quarter in EMTS	Y
r—Prior-year RFS2 RINs expired in EMTS at the end of the quarter (Current Year—2 only)	
r.1—If company identifying information present	Y
r.2—If company identifying information absent	N
s—Current-year RFS2 RINs owned at the start of the quarter in EMTS	Y
t—Current-year RFS2 RINs purchased in EMTS	Y
u—Current-year RFS2 RINs sold in EMTS	Y
v—Current-year RFS2 RINs separated in EMTS	Y
w—Current-year RFS2 RINs retired in EMTS	Y
x—Current-year RFS2 RINs owned at the end of the quarter in EMTS	Y

TABLE 2–80.1451—EMTS DATA SUBMITTED IN QUARTERLY ACTIVITY REPORTS—Continued

Field name	CBI
y—RFS2 RINs generated during the quarter in EMTS	Y
z—Submission Comment	Y
System 1—CDX Submission ID	Y
System 2—Submitter	Y

TABLE 3–80.1451—EMTS DATA SUBMITTED IN ANNUAL COMPLIANCE REPORTS

Field name	CBI
a—Company ID	Y
b—Company Name	Y
c—Report Number	N
d—Report Type	N
e—CBI	N
f—Report Date	N
g—Compliance Year	Y
h—Renewable Volume Obligation (RVO)	Y
i—Gasoline and Diesel Production/Renewable Fuel Export Volume	Y
j—Renewable Fuel Standard Value/Equivalence Value	N
k—Cellulosic Biofuel Waiver Credits Payment ID	Y
l—Cellulosic Biofuel Waiver Credits Payment Method	Y
m—Cellulosic Biofuel Waiver Credits Used	Y
n—Compliance Basis/Facility ID	Y
o—Compliance Facility Number	Y
p—Renewable Fuel Export Type	Y
q—Prior Year Deficit	Y
r—Renewable Volume Obligation (Name)	N
s—Prior-year RFS2 RINs used, D code of 3	Y
t—Prior-year RFS2 RINs used, D code of 4	Y
u—Prior-year RFS2 RINs used, D code of 5	Y
v—Prior-year RFS2 RINs used, D code of 6	Y
w—Prior-year RFS2 RINs used, D code of 7	Y
x—Current-year RFS2 RINs used, D code of 3	Y
y—Current-year RFS2 RINs used, D code of 4	Y
z—Current-year RFS2 RINs used, D code of 5	Y
aa—Current-year RFS2 RINs used, D code of 6	Y
ab—Current-year RFS2 RINs used, D code of 7	Y
ac—Deficit RVO	Y
ad—Submission Comment	Y
ae—CDX Submission ID	Y
af—Submitter	Y

TABLE 4–80.1451—DATA IN PDF VERSIONS OF QUARTERLY RIN SELL TRANSACTION REPORTS

Field name	CBI
a—Seller Company ID	Y
b—Seller Company Name	Y
c—Buyer Company ID	Y
d—Buyer Company Name	Y
e—RIN Year	Y
f—Fuel D-Code	Y
g—Assignment Code Text	Y
h—Batch Volume	Y
i—RIN Quantity	Y
j—Ptd Number	Y
k—Generate Organization ID (non-FIFO)	Y
l—Generate Facility ID (non-FIFO)	Y
m—Generate Batch Number (non-FIFO)	Y
n—Sell Reason Code Text	N
o—Document ID	Y
p—Document Name	Y
q—Transaction Comment	Y
System 1—CDX Submission ID	Y
System 2—EMTS Submission Date	N
System 3—EMTS Submission ID	N
System 4—EMTS Transaction Date	N
System 5—EMTS Transaction ID	N

TABLE 5–80.1451—DATA IN PDF VERSIONS OF QUARTERLY RIN BUY TRANSACTION REPORTS

Field name	CBI
a—Buyer Company ID	Y
b—Buyer Company Name	Y
c—Seller Company ID	Y
d—Seller Company Name	Y
e—RIN Year	Y
f—Fuel D-Code	Y
g—Assignment Code Text	Y
h—Batch Volume	Y
i—RIN Quantity	Y
j—Ptd Number	Y
k—Generate Organization ID (non-FIFO)	Y
l—Generate Facility ID (non-FIFO)	Y
m—Generate Batch Number (non-FIFO)	Y
n—Buy Reason Code Text	N
o—Document ID	Y
p—Document Name	Y
q—Transaction Comment	Y
System 1—CDX Submission ID	Y
System 2—EMTS Submission Date	N
System 3—EMTS Submission ID	N
System 4—EMTS Transaction Date	N
System 5—EMTS Transaction ID	N

TABLE 6–80.1451—DATA IN PDF VERSIONS OF QUARTERLY RIN SEPARATE TRANSACTION REPORTS

Field name	CBI
a—Separator Company ID	Y
b—Separator Company Name	Y
c—RIN Year	Y
d—Fuel D-Code	Y
e—Assignment Code	Y
f—Batch Volume	Y
g—Blender Company ID	Y
h—Blender Company Name	Y
i—RIN Quantity	Y
j—Separate Reason Code Text	N
k—Generate Organization ID (non-FIFO)	Y
l—Generate Facility ID (non-FIFO)	Y
m—Generate Batch Number (non-FIFO)	Y
n—Document ID	Y
o—Document Name	Y
p—Transaction Comment	Y
System 1—CDX Submission ID	Y
System 2—EMTS Submission ID	N
System 3—EMTS Transaction Date	N
System 4—EMTS Transaction ID	N

TABLE 7–80.1451—DATA IN PDF VERSIONS OF QUARTERLY RIN RETIRE TRANSACTION REPORTS

Field name	CBI
a—Retirement Company ID	Y
b—Retirement Company Name	Y
c—RIN Year	Y
d—Fuel D-Code	Y
e—Assignment Code Text	Y
f—Batch Volume	Y
g—RIN Quantity	Y
h—Generate Organization ID (non-FIFO)	Y
i—Generate Facility ID (non-FIFO)	Y
j—Generate Batch Number (non-FIFO)	Y
k—Retire Reason Code Text	N
l—Compliance Year	Y
m—Compliance Level Code	Y
n—Compliance Facility ID	Y
o—Transaction Comment	Y
p—Document ID	Y
q—Document Name	Y
System 1—CDX Submission ID	Y
System 2—EMTS Submission ID	N
System 3—EMTS Transaction Date	N
System 4—EMTS Transaction ID	N

* * * * *

■ 52. Section 80.1452 is amended by:
■ a. Revising paragraph (b)(11);
■ b. Redesignating paragraph (b)(16) as paragraph (b)(18) and adding new paragraph (b)(16) and paragraph (17); and
■ c. Redesignating paragraph (d) as paragraph (g) and adding new paragraph (d) and paragraphs (e) and (f).

The revisions and additions read as follows:

§ 80.1452 What are the requirements related to the EPA Moderated Transaction System (EMTS)?

* * * * *

(b) * * *

(11) The volume of ethanol denaturant and applicable equivalence value of each batch.

* * * * *

(16) Starting January 1, 2018, or a later date designated by EPA, the type and quantity of biointermediate(s) used for the batch, if applicable.

(17) Starting January 1, 2018, or a later date designated by EPA, the EPA facility registration number of each biointermediate production facility at which a biointermediate used for the batch was produced, if applicable.

* * * * *

(d) Parties shall not assign RINs to a batch of renewable fuel pursuant to paragraph (b) of this section prior to EPA approval of applicable registration requirements under § 80.1450(b), (c), (d)(1), and (d)(4).

(e) The following tables set forth EPA determinations regarding the extent to which listed EMTS data elements are eligible for treatment as confidential business information.

TABLE 1 TO § 80.1452—EMTS DATA RELATED TO RIN GENERATION

Field name	CBI
a—RIN Originator Company ID	Y
b—RIN Originator Company Name	Y
c—RIN Quantity	Y
d—Batch Volume	Y
e—Fuel D-Code	Y
f—Production Process	Y
g—Fuel Category Code Text	Y
h—Fuel Production Date	Y
i—Denaturant Volume	Y
j—Equivalence Value	Y
k—Renewable Fuel Producer Company ID	Y
l—Renewable Fuel Producer Company Name	Y
m—Renewable Fuel Producer Facility Number	Y
n—RIN Originator Facility Number	Y
o—RIN Originator Import Facility Number	Y
p—RIN Originator Batch Number	Y
q—Production Source Comment	Y
r—Feedstocks	Y
s—Feedstocks Amount	Y
t—Feedstocks Unit of Measure	N
u—QAP Service Type	Y
v—Feedstock Comment	Y
w—Co-Product	Y
x—Co-Product Comment	Y
y—RIN Year	Y
System 1—CDX Submission ID	Y
System 2—Data Preparer	N
System 3—EMTS Generate Transaction ID	N
System 4—EMTS Submission Date	N
System 5—EMTS Submission ID	N
System 6—EMTS Transaction Date	N
System 7—EMTS Transaction ID	N
System 8—Submission Method	N
System 9—Submitter	Y

TABLE 2 TO § 80.1452—EMTS DATA RELATED TO RIN SELL TRANSACTIONS

Field name	CBI
a—Seller Company ID	Y
b—Seller Company Name	Y
c—Buyer Company ID	Y
d—Buyer Company Name	Y
e—Ptd Number	Y
f—RIN Quantity	Y
g—Batch Volume	Y
h—Fuel D-Code	Y
i—Assignment Code Text	Y
j—RIN Year	Y
k—QAP Service Type	Y
l—Transfer Date	Y
m—Sell Reason Code Text	N
n—Price Per Gallon	Y
o—Price Per RIN	Y
p—Transaction Comment	Y
q—Generate Organization ID (non-FIFO)	Y
r—Generate Facility ID (non-FIFO)	Y
s—Generate Batch Number (non-FIFO)	Y
t—Public Supporting Document (text box 1)	Y
u—Public Supporting Document ID (text box 1)	Y
v—Public Supporting Document (text box 2)	Y
w—Public Supporting Document (text box 2)	Y
System 1—CDX Submission ID	Y
System 2—Data Preparer	N
System 3—EMTS Buy Transaction ID	N
System 4—EMTS Submission Date	N
System 5—EMTS Submission ID	N
System 6—EMTS Transaction Date	N
System 7—EMTS Transaction ID	N
System 8—Matched EMTS Transaction ID	N
System 9—Submission Method	N
System 10—Submitter	Y

TABLE 3 TO § 80.1452—EMTS DATA RELATED TO RIN BUY TRANSACTIONS

Field name	CBI
a—Buyer Company ID	Y

TABLE 3 TO § 80.1452—EMTS DATA RELATED TO RIN BUY TRANSACTIONS—Continued

Field name	CBI
b—Buyer Company Name	Y
c—Seller Company ID	Y
d—Seller Company Name	Y
e—Ptd Number	Y
f—RIN Quantity	Y
g—Batch Volume	Y
h—Fuel D-Code	Y
i—Assignment Code Text	Y
j—RIN Year	Y
k—QAP Service Type	Y
l—Transfer Date	Y
m—Buy Reason Code Text	N
n—Price Per RIN	Y
o—Price Per Gallon	Y
p—Transaction Comment	Y
q—Generate Organization ID (non-FIFO)	Y
r—Generate Facility ID (non-FIFO)	Y
s—Generate Batch Number (non-FIFO)	Y
t—Public Supporting Document (text box 1)	Y
u—Public Supporting Document ID (text box 1)	Y
v—Public Supporting Document (text box 2)	Y
w—Public Supporting Document (text box 2)	Y
System 1—CDX Submission ID	Y
System 2—Data Preparer	N
System 3—EMTS Buy Transaction ID	N
System 4—EMTS Submission Date	N
System 5—EMTS Submission ID	N
System 6—EMTS Transaction Date	N
System 7—EMTS Transaction ID	N
System 8—Matched EMTS Transaction ID	N
System 9—Submission Method	N
System 10—Submitter	Y

TABLE 4 TO § 80.1452—EMTS DATA RELATED TO RIN SEPARATE TRANSACTIONS

Field name	CBI
a—RIN Separator Company ID	Y
b—RIN Separator Company Name	Y
c—Transaction Date	Y
d—RIN Quantity	Y
e—Batch Volume	Y
f—Fuel D-Code	Y
g—Separate Reason Code Text	N
h—Assignment Code	Y
i—RIN Year	Y
j—QAP Service Type	Y
k—Blender Company ID	Y
l—Blender Company Name	Y
m—Transaction Comment	Y
n—Generate Organization ID (non-FIFO)	Y
o—Generate Facility ID (non-FIFO)	Y

TABLE 4 TO § 80.1452—EMTS DATA RELATED TO RIN SEPARATE TRANSACTIONS—Continued

Field name	CBI
p—Generate Batch Number (non-FIFO)	Y
q—Document ID	Y
r—Document Name	Y
System 1—CDX Submission ID	Y
System 2—Data Preparer	N
System 3—EMTS Submission Date	N
System 4—EMTS Submission ID	N
System 5—EMTS Transaction Date	N
System 6—EMTS Transaction ID	N
System 7—Submission Method	N
System 8—Submitter	Y
System 9—Separation Transaction ID	N

TABLE 5 TO § 80.1452—EMTS DATA RELATED TO RIN RETIRE TRANSACTIONS

Field name	CBI
a—RIN Retirement Company ID	Y
b—RIN Retirement Company Name	Y
c—RIN Quantity	Y
d—Batch Volume	Y
e—Fuel D-Code	Y
f—Assignment Code Text	Y
g—RIN Year	Y
h—QAP Service Type	Y
i—Retire Reason Code Text	N
j—Compliance Year	Y
k—Compliance Level Code Text	Y
l—Compliance Facility ID	Y
m—Transaction Comment	Y
n—Generate Organization ID (non-FIFO)	Y
o—Generate Facility ID (non-FIFO)	Y
p—Generate Batch Number (non-FIFO)	Y
q—Document ID	Y
r—Document Name	Y
System 1—CDX Submission ID	Y
System 2—Data Preparer	N
System 3—EMTS Submission Date	N
System 4—EMTS Submission ID	N
System 5—EMTS Transaction Date	N
System 6—EMTS Transaction ID	N
System 7—Submission Method	N
System 8—Submitter	Y
System 9—Retire Transaction ID	N

(f) EPA's public release of EPA enforcement-related determinations and EPA actions under the RFS program, together with basic information regarding the party or parties involved and the RINs in question, does not involve the release of information that is entitled to treatment as confidential business information. Such information may include the company name and company identification number of the party that generated the RINs in question, the facility name and facility identification number of the facility at which the fuel associated with the RINs in question was allegedly produced or imported, the total quantity of RINs in question, the time period when the RINs in question were generated, and the batch number(s) and the D code(s) of the RINs in question. Enforcement-related determinations and actions within the scope of this rule include EPA determinations that RINs are invalid under § 80.1474(b)(4)(i)(C)(2) and (b)(4)(ii)(C)(2), notices of violation, administrative complaints, civil complaints, criminal informations and criminal indictments.

■ 53. Section 80.1453 is amended by revising paragraphs (a) introductory text, (a)(12) introductory text, and (d), and adding paragraph (e) to read as follows:

§ 80.1453 What are the product transfer document (PTD) requirements for the RFS program?

(a) On each occasion when any person transfers ownership of neat and/or blended renewable fuels or separated RINs subject to this subpart, other than when fuel is sold or dispensed at a retail outlet or wholesale purchaser-consumer facility, the transferor shall provide to the transferee documents that include the following information, as applicable.

* * * * *

(12) Except as provided in § 80.1433(e), an accurate and clear statement on the product transfer document of the fuel type and intended fuel use or uses, from the options listed below, which is made in good faith:

* * * * *

(d) For fuel oil meeting paragraph (2) of the definition of heating oil in § 80.1401, the PTD of the fuel oil shall state: ''This volume of renewable fuel oil is designated and intended to be used to heat or cool interior spaces of homes or buildings to control ambient climate for human comfort. Do NOT use for process heat or cooling or any other purpose, as these uses are prohibited pursuant to 40 CFR 80.1460(g).''

(e) On each occasion when any party transfers title or custody of a biointermediate, the transferor must provide to the transferee documents that include all of the following information:

(1) The name and address of the transferor and transferee.

(2) The transferor's and transferee's EPA company registration and applicable facility registration numbers.

(3) The volume of biointermediate that is being transferred.

(4) The date of the transfer.

(5) The location of the biointermediate at the time of the transfer.

(6) The renewable fuel type the biointermediate was designated to be used as a feedstock material for by the biointermediate producer under § 80.1475(i).

(7) The composition of the biointermediate being transferred, including:

(i) The type and quantity of each feedstock, specified exactly as described in Table 1 to § 80.1426, that was used to make the biointermediate.

(ii) The percentage of each feedstock that is renewable biomass, rounded to two decimal places.

(iii) For a biointermediate that contains both renewable and non-renewable feedstocks:

(A) The percentage of each feedstock that is not renewable biomass, rounded to two decimal places.

(B) The feedstock energy from the renewable biomass used to make the biointermediate, in Btu.

(C) The feedstock energy from the non-renewable biomass used to make the biointermediate, in Btu.

(D) The total percentage of the biointermediate that may generate RINs, rounded to two decimal places.

(E) The total percentage of the biointermediate that may not generate RINs, rounded to two decimal places.

(iv) For a biointermediate that contains cellulosic material:

(A) The percentage of each feedstock in § 80.1453(e)(6)(ii) that is cellulosic, rounded to two decimal places.

(B) The percentage of each feedstock in § 80.1453(e)(6)(ii) that is non-cellulosic, rounded to two decimal places, if applicable.

(C) The total percentage of the biointermediate that may generate cellulosic RINs, rounded to two decimal places.

(D) For separated municipal solid waste as described in § 80.1426(f)(5)(i)(C), the cellulosic portion of the biointermediate is equivalent to the biogenic portion.

(E) For separated food waste, the non-cellulosic percentage is assumed to be zero percent unless it is demonstrated to be partially cellulosic.

(F) For separated yard waste, as described in § 80.1426(f)(5)(i)(A), 100% of separated yard waste is deemed to be cellulosic.

(G) The following statement ''I certify that the cellulosic content of this feedstock was derived from cellulose, hemicellulose, or lignin that was derived from renewable biomass.''

(v) The type and proportion of RINs that may be generated for the biointermediate.

(8) Copies of records specified in §§ 80.1454(n)(3) and 80.1454(n)(5) through (7) for the volume being transferred, as applicable.

(9) The following statement designating the volume of biointermediate as feedstock for the production of a renewable fuel: ''This volume is designated and intended for use as biointermediate feedstock in the production of renewable fuel as defined in 40 CFR 80.1401. Parties shall not generate RINs on this feedstock material.''

■ 54. Section 80.1454 is amended by:

■ a. Revising paragraphs (a) introductory text and (a)(4)(i);

■ b. Adding paragraph (a)(7);

■ c. Redesignating paragraphs (b)(3)(vii) through (xii) as paragraphs (b)(3)(viii) through (xiii) and adding a new paragraph (b)(3)(vii);

■ d. Revising paragraph (b)(6);

■ e. Adding paragraph (b)(11);

■ f. Revising paragraph (d)(2) introductory text;

■ g. Redesignating paragraph (d)(2)(vi) as (d)(2)(vii) and adding new paragraph (d)(2)(vi) and paragraph (d)(2)(viii);

■ h. Revising paragraph (h)(6)(iii);

■ i. Redesignating paragraphs (n) through (t) as paragraphs (q) through (w) and adding new paragraphs (n) through (p); and

■ j. Revising newly redesignated paragraphs (q) and (t).

The revisions and additions read as follows:

§ 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), exporter of renewable fuel (as described at § 80.1401), or party that must retire RINs under § 80.1433, must keep all of the following records:

* * * * *

(4) * * *

(i) Methods and variables used to calculate the Renewable Volume Obligations pursuant to § 80.1407, § 80.1430, or § 80.1433.

* * * * *

(7) For parties that must retire RINs under § 80.1433, invoices, bills of lading, and other documents describing the renewable fuel and the intended use of the renewable fuel for which RINs must be retired under § 80.1433.

* * * * *

(b) * * *

(3) * * *

(vii) Type and quantity of biointermediate used.

* * * * *

(6) Copies of registration documents required under § 80.1450, including information on fuels and products, feedstocks, biointermediates, facility production processes, process changes, and capacity, energy sources, and a copy of the independent third party engineering review written report submitted to EPA per § 80.1450(b)(2).

* * * * *

(11) For any producer of renewable fuel that achieves the greenhouse gas reductions necessary to qualify for a renewable fuel pathway by using CCS technology as part of the renewable fuel production process, records presenting accurate calculations verifying compliance with the applicable lifecycle greenhouse gas reductions reported in accordance with § 80.1451(b)(1)(ii)(W).

* * * * *

(d) * * *

(2) Domestic producers of renewable fuel made from qualified 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:

* * * * *

(vi) An agreement for land management consultation with a professional forester that identifies the land in question.

* * * * *

(viii) Records satisfying the requirements of paragraph (d)(3)(i) of this section that serve as evidence that the land on which the tree plantation is located was cleared or cultivated prior to December 19, 2007, and actively managed or fallow on December 19, 2007.

* * * * *

(h) * * *

(6) * * *

(iii) The survey plan must be sent to the attention of ''RFS Program'' to the address in § 80.10(a).

* * * * *

(n) *Requirements for biointermediate producers.* Beginning on the effective date of the final rule, any biointermediate producer producing a biointermediate must keep all of the following records in addition to those required under paragraphs (a) through (m) of this section:

(1) Product transfer documents consistent with § 80.1453(e) and associated with the biointermediate producer's activities, if any, as transferor or transferee of biointermediates.

(2) Copies of all reports submitted to EPA under § 80.1451(i).

(3) Records related to the production of biointermediates for each biointermediate production facility, including all of the following:

(i) Batch volume.

(ii) Batch number.

(iii) Type and quantity of co-products produced.

(iv) Type and quantity of feedstocks used.

(v) Type and quantity of fuel used for process heat.

(vi) Feedstock energy calculations per § 80.1426(f)(4), as applicable.

(vii) Date of production.

(viii) Results of any laboratory analysis of batch chemical composition or physical properties.

(4) Copies of registration documents required under § 80.1450, including information on 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)(i).

(5) Records demonstrating that feedstocks are renewable biomass, as required under paragraphs (d), (g), or (h) of this section.

(6) A biointermediate producer that produces a biointermediate from separated yard and food waste for use in the production of a renewable fuel, as described in § 80.1426(f)(5)(i)(A) and (B), or from separated municipal solid waste, as described in § 80.1426(f)(5)(i)(C), shall keep all records described in paragraph (j) of this section, as applicable.

(7) For any biointermediate made from *Arundo donax* or *Pennisetum purpureum* per § 80.1426(f)(14), all applicable records described in paragraph (b)(7) of this section.

(8) Records, including contracts, related to the implementation of a QAP under § 80.1469.

(o) A producer of renewable fuel that achieves the greenhouse gas reductions necessary to qualify for a renewable fuel pathway by using CCS technology as part of the renewable fuel production process must retain records of all information reported in accordance with the applicable requirements of 40 CFR part 98, subpart PP, must follow the applicable record retention requirements specified by 40 CFR part 98, subpart PP, and one of the following, as applicable:

(1) If the injection occurs onsite, follow the record retention requirements specified by 40 CFR part 98, subpart RR, and retain records of all information reported by the producer or importer in accordance with the requirements of 40 CFR part 98, subpart RR.

(2) If the injection occurs offsite, retain records of all information reported by the facility or facilities that report in accordance with the requirements of 40 CFR part 98, subpart RR.

(p) Producers of renewable fuel using short-rotation willow or short-rotation hybrid poplar shall keep records of all of the following:

(1) The specific short-rotation willow or short-rotation hybrid poplar species or hybrids utilized to produce each batch of renewable fuel.

(2) The total quantity of each specific short-rotation willow or short-rotation hybrid poplar feedstock used for each batch.

(3) Total amount of fuel produced under the short-rotation willow or short-rotation hybrid poplar pathway for each batch.

(4) Affidavits from the short-rotation willow or short-rotation hybrid poplar feedstock suppliers confirming that the feedstocks supplied to the producer are grown only at locations that qualify as a tree plantation and for which records required pursuant to § 80.1450(b)(1)(xviii)(C) have been provided to the producer. The producer shall obtain affidavits under this paragraph at least once per calendar quarter.

(5) Contracts from the short-rotation willow or short-rotation hybrid poplar feedstock suppliers confirming that the feedstocks supplied to the producer are grown only at locations that qualify as a tree plantation and for which records required pursuant to § 80.1450(b)(1)(xviii)(C) have been provided to the producer.

(q) The records required under paragraphs (a) through (d) and (f) through (p) 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.

* * * * *

(t) 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 non-RIN-generating foreign producer.

* * * * *

■ 55. Section 80.1460 is amended by:

■ a. Revising paragraphs (b)(5) and (c)(2);

■ b. Removing paragraph (c)(3);

■ c. Revising paragraph (g); and

■ d. Adding paragraphs (j) through (l).

The revisions and additions read as follows:

§ 80.1460 What acts are prohibited under the RFS program?

* * * * *

(b) * * *

(5) Introduce into commerce any renewable fuel produced from a feedstock, a biointermediate feedstock, or through a process that is not described in the person's registration information.

* * * * *

(c) * * *

(2) Use a RIN for compliance or transfer a RIN that was assigned to renewable fuel received by a person if the person uses the volume of fuel associated with the RIN for an application other than as transportation fuel, jet fuel, or heating oil.

* * * * *

(g) *Failing to use a renewable fuel oil for its intended use.* No person shall use fuel oil that meets paragraph (2) of the definition of heating oil in § 80.1401 and for which RINs have been generated in an application other than to heat or cool interior spaces of homes or buildings to control ambient climate for human comfort.

* * * * *

(j) *Improper biointermediate production violation.* No person shall introduce into commerce for use in the production of a renewable fuel any biointermediate produced from a feedstock or through a process that is not described in the person's registration information.

(k) *Independent third-party engineer violations.* No person shall do any of the following:

(1) Fail to identify any incorrect information submitted by the renewable fuel producer, foreign ethanol producer, or biointermediate producer as described in § 80.1450(b)(2).

(2) Fail to meet any requirement related to engineering reviews as described in § 80.1450(b)(2).

(3) Fail to disclose to EPA any financial, professional, business, or other interests with parties for whom the independent third-party engineer provides services under § 80.1450.

(4) Fail to meet any requirement related to the independent third-party engineering review registration requirements in § 80.1450(b)(2) or (d)(1).

(l) *Failing to designate fuel for an alternative use or retire RINs as required.* No person shall fail to designate fuel for an alternative use or retire RINs as required by § 80.1433.

■ 56. Section 80.1461 is amended by revising paragraphs (a) and (c) and adding paragraph (e) to read as follows:

§ 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) or § 80.1460(g) through (l) 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) or § 80.1460(g) through (l) is liable for a violation of § 80.1460(e).

* * * * *

(c) *Parent corporation liability.* Any parent corporation is liable for any violation of this subpart that is committed by any of its subsidiaries, contractors, subcontractors, or affiliates.

* * * * *

(e) *Biointermediate liability.* When a biointermediate contained in any storage tank at any facility owned, leased, operated, controlled, or supervised by any biointermediate producer, biointermediate importer, renewable fuel producer, or foreign ethanol producer is found in violation of the prohibition described in § 80.1460(j), the following persons shall be deemed in violation:

(1) Each biointermediate producer, biointermediate importer, renewable fuel producer, renewable fuel importer, or foreign ethanol producer who owns, leases, operates, controls, or supervises the facility where the violation is found.

(2) Each biointermediate producer, biointermediate importer, renewable fuel producer, renewable fuel importer, or foreign ethanol producer who manufactured, imported, sold, offered for sale, dispensed, offered for supply, stored, transported, or caused the transportation of any biointermediate that is in the storage tank containing the biointermediate found to be in violation.

(3) Each carrier who dispensed, supplied, stored, or transported any biointermediate that was in the storage tank containing the biointermediate found to be in violation, provided that EPA demonstrates, by reasonably specific showings using direct or circumstantial evidence, that the carrier caused the violation.

■ 57. Section 80.1464 is amended by:

■ a. Revising paragraphs (a) introductory text, (a)(1)(i)(A), and (a)(1)(ii) and (v);

■ b. Adding paragraph (a)(1)(vii);

■ c. Revising paragraphs (b)(1)(ii) and (v); and

■ d. Adding paragraph (h).

The revisions and additions read as follows:

§ 80.1464 What are the attest engagement requirements under the RFS program?

* * * * *

(a) *Obligated parties and exporters.* The following attest procedures shall be completed for any obligated party as stated in § 80.1406(a), exporter of renewable fuel, or party that must retire RINs under § 80.1433:

(1) * * *

(i) * * *

(A) The obligated party's volume of all products listed in § 80.1407(c) and (e), the exporter's volume of each category of exported renewable fuel identified in § 80.1430(b)(1) through (b)(4), or the volume of each category of renewable fuel identified in § 80.1433(a)(1) through (a)(4), as applicable.

* * * * *

(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, exported during the reporting year, or redesignated as described in § 80.1433; compute and report as a finding the total volumes of renewable fuel represented in these documents.

* * * * *

(v) Compute and report as a finding the RVOs for the obligated party, exporter, or party that must retire RINs under § 80.1433, 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.

* * * * *

(vii) For parties that must retire RINs under § 80.1433, perform all of the following:

(A) Obtain the database, spreadsheet, or other documentation that the party maintains for all renewable fuel for which RINs must be retired under § 80.1433.

(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.

(D) Select sample batches in accordance with the guidelines in § 80.127 from each separate category of renewable fuel identified in § 80.1451(a); obtain invoices, bills of lading, and other documentation for the representative samples; state whether any of these documents refer to the renewable fuel as advanced biofuel or cellulosic biofuel; and report as a finding whether or not the party calculated an advanced biofuel or cellulosic biofuel RVO for these fuels pursuant to § 80.1433(a)(1) or § 80.1433(a)(3).

(b) * * *

(1) * * *

(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 ethanol 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.

* * * * *

(v)(A) Obtain documentation, as required under § 80.1451(b), (d), and (e), associated with feedstock and biointermediate 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.

(C) Verify that biointermediates were properly identified in the reports, if applicable.

* * * * *

(h) *Biointermediate producers.* The following attest reports shall be completed for any biointermediate producer that produces a biointermediate in a calendar year:

(1) *Biointermediate production reports.* (i) Obtain and read copies of the quarterly biointermediate production reports required under § 80.1451(i).

(ii) Obtain any database, spreadsheet, or other documentation used to generate the information in the biointermediate production reports; compare the corresponding entries in the database or spreadsheet and report as a finding any discrepancies.

(iii) For a representative sample of biointermediate batches, selected in accordance with the guidelines in § 80.127, obtain records required under § 80.1454(n); compare these records to the corresponding batch entries in the reports procured in paragraph (h)(1)(i) of this section and report as a finding any discrepancies.

(2) *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.

(3) *Product transfer documents.* (i) Obtain contracts, invoices, or other documentation for the representative sample under paragraph (h)(1)(iii) of this section and the corresponding copies of product transfer documents required under § 80.1453; compare the product transfer documents with the contracts and invoices and report as a finding any discrepancies.

(ii) Verify that the product transfer documents obtained in paragraph (h)(3)(i) of this section contain the applicable information required under § 80.1453 and report as a finding any product transfer document that does not contain the required information.

(iii) Verify the accuracy of the information contained in the product transfer documents reviewed pursuant to paragraph (h)(3)(ii) of this section with the records obtained and reviewed under paragraph (h)(1)(iii) of this section and report as a finding any exceptions.

* * * * *

■ 58. Section 80.1466 is amended by:
■ a. Revising the section heading;
■ b. Revising paragraphs (a) and (b);
■ c. Revising paragraphs (c) introductory text and (c)(1);
■ d. Revising paragraphs (d)(1)(iii) and (v), (d)(1)(vi)(B), (d)(3)(ii), and (e)(2)(ii);
■ e. Revising paragraphs (f) introductory text and (f)(1) introductory text;
■ f. Revising paragraphs (f)(1)(ii)(C), (f)(1)(v)(A) and (C), (f)(1)(vii), (f)(2) through (8), and (g);
■ g. Revising paragraph (h) introductory text;
■ h. In the equation in paragraph (h)(1) revising the definition ''G'';
■ i. Revising paragraphs (h)(2), (h)(3)(iii), (h)(4), (i), (j)(2) through (4), (k)(1), (k)(2)(ii), (k)(4)(ii), and (k)(5);
■ j. Revising paragraphs (l) introductory text and (l)(1) introductory text;
■ k. Revising paragraphs (l)(2)(i), (l)(3), (m)(3)(ii), and (m)(6)(i);
■ l. Revising paragraphs (n) introductory text and (n)(1), (3), and (4);
■ m. Revising paragraphs (o) introductory text and (o)(2); and
■ n. Adding paragraph (p).

The revisions and addition read as follows:

§ 80.1466 What are the additional requirements under this subpart for foreign renewable fuel producers and importers of renewable fuels?

(a) *Applicability.* This section only applies to foreign renewable fuel producers that are 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'').

(b) *General requirements.* An approved foreign renewable fuel producer under this section must meet all requirements that apply to renewable fuel producers under this subpart.

(c) *Designation, RIN-generating foreign producer certification, and product transfer documents.* (1) Any approved foreign renewable fuel producer must designate each batch of such renewable fuel as ''RFS–FRRF'' at the time the renewable fuel is produced.

* * * * *

(d) * * *

(1) * * *

(iii) Obtain the EPA-assigned registration number of the RIN-generating foreign producer.

* * * * *

(v) Determine the date and time the vessel departs the port serving the RIN-generating foreign producer.

(vi) * * *

(B) That the RFS–FRRF remained segregated from Non-RFS–FRRF and other RFS–FRRF produced by a different foreign producer.

* * * * *

(3) * * *

(ii) Be independent under the criteria specified in § 80.65(f)(2)(iii); and

* * * * *

(e) * * *

(2) * * *

(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 RIN-generating 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 foreign renewable fuel producer shall commit to and comply with the following provisions as a condition to being approved as a foreign renewable fuel producer under this subpart:

(1) Any EPA inspector or auditor must be given full, complete, and immediate access to conduct inspections and audits of the foreign renewable fuel producer facility.

* * * * *

(ii) * * *

(C) Renewable fuel is stored or transported between the foreign renewable producer and the United States, including storage tanks, vessels and pipelines.

* * * * *

(v) * * *

(A) The volume of renewable fuel.

* * * * *

(C) Transfers of title or custody to the renewable fuel.

* * * * *

(vii) Any employee of the foreign renewable fuel producer must be made available for interview by the EPA inspector or auditor, on request, within a reasonable time period.

* * * * *

(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 renewable fuel producer or any employee of the foreign renewable fuel 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 renewable fuel producer or any employee of the foreign renewable fuel producer related to the provisions of this section.

(5) Applying to be an approved foreign renewable fuel 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 renewable fuel 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 renewable fuel 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 renewable fuel 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 shall be signed by the owner

or president of the foreign renewable fuel producer company.

(8) In any case where renewable fuel produced at a foreign renewable fuel production facility is stored or transported by another company between the production facility and the vessel that transports the renewable fuel to the United States, the foreign renewable fuel 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 renewable fuel producer's application to be an approved foreign renewable fuel producer under this subpart.

(g) *Sovereign immunity.* By submitting an application to be an approved foreign renewable fuel producer under this subpart, or by producing and exporting renewable fuel to the United States under such approval, the foreign renewable fuel 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 renewable fuel 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 renewable fuel 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 RIN-generating foreign producer under this subpart.

(1) * * *

G = the greater of: The largest volume of renewable fuel produced by the RIN-generating 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 RIN-generating 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 RIN-generating foreign producer shall increase the bond to cover the shortfall within 90 days.

(2) 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 RIN-generating foreign producer, provided EPA agrees in advance as to the third party and the nature of the surety agreement.

(3) * * *

(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 RIN-generating foreign producer produces renewable fuel pursuant to the requirements of this subpart.

(4) On any occasion a RIN-generating foreign producer bond is used to satisfy any judgment, the RIN-generating 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 renewable fuel producer shall be in English, or shall include an English language translation.

(j) * * *

(2) No foreign renewable fuel 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 renewable fuel producer or importer may generate RINs for the same volume of renewable fuel.

(4) A foreign renewable fuel producer is prohibited from generating RINs in excess of the number for which the bond requirements of this section have been satisfied.

(k) * * *

(1) Renewable fuel shall be classified as RFS–FRRF according to the designation by the RIN-generating 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) * * *

(ii) Use the RIN-generating foreign producer's RFS–FRRF certification to determine the name and EPA-assigned registration number of the RIN-generating foreign producer that produced the RFS–FRRF.

* * * * *

(4) * * *

(ii) The RIN-generating 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 RIN-generating foreign producer.* (1) Any RIN-generating 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:

* * * * *

(2) * * *

(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 renewable fuel producers.

* * * * *

(3) The petition described in this section must be submitted to EPA along with the application for approval as a RIN-generating foreign producer under this subpart.

(m) * * *

(3) * * *

(ii) Obtain the documents used by the independent third party to determine transportation and storage of the RFS–FRRF from the RIN-generating 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 RIN-generating 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.

* * * * *

(6) * * *

(i) Be independent of the RIN-generating foreign producer;

* * * * *

(n) *Withdrawal or suspension of foreign renewable fuel producer approval.* EPA may withdraw or suspend a foreign renewable fuel producer's approval where any of the following occur:

(1) A foreign renewable fuel producer fails to meet any requirement of this section.

* * * * *

(3) A foreign renewable fuel 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 renewable fuel producer fails to pay a civil or criminal penalty

that is not satisfied using the foreign renewable fuel producer bond specified in paragraph (h) of this section.

(o) *Additional requirements for applications, reports, and certificates.* Any application for approval as a foreign renewable fuel producer, alternative procedures under paragraph (l) of this section, any report, certification, or other submission required under this section shall be:

* * * * *

(2) Signed by the president or owner of the foreign renewable fuel producer company, or by that person's immediate designee, and shall contain the following declaration:

(i) ''I hereby certify:

(A) That I have actual authority to sign on behalf of and to bind [NAME OF FOREIGN RENEWABLE FUEL PRODUCER] with regard to all statements contained herein;

(B) 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

(C) 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.

(ii) I affirm that I have read and understand the provisions of 40 CFR part 80, subpart M, including 40 CFR 80.1465 apply to [NAME OF FOREIGN RENEWABLE FUEL 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.''

(p) *Requirements for non-RIN-generating foreign producer.* Any non-RIN-generating foreign producer must comply with the requirements of this section beginning on the effective date of the final rule or prior to EPA acceptance, whichever is later.

■ 59. Section 80.1468 is amended by:

■ a. in the first sentence of paragraph (a), removing ''this part'' and adding ''this subpart'' in its place; and

■ b. revising paragraphs (b)(1), (3), (4), (5), (7), and (8) to read as follows:

§ 80.1468 Incorporation by reference

* * * * *

(b) * * *

(1) ASTM D 1250–08 (Reapproved 2013) (''ASTM D 1250''), Standard Guide for Use of the Petroleum Measurement Tables, Approved October 1, 2013; IBR approved for § 80.1426(f)(8)(ii)(B).

* * * * *

(3) ASTM D 4444–13 (''ASTM D 4444''), Standard Test Method for Laboratory Standardization and Calibration of Hand-Held Moisture Meters, Approved April 1, 2013; IBR approved for § 80.1426(f)(7)(v)(B).

(4) ASTM D 6751–15 (''ASTM D 6751''), Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, Approved January 1, 2015, 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), 80.1430(e)(2), and 80.1433(c)(2).

* * * * *

(7) ASTM E 870–82 (Reapproved 2006) (''ASTM E 870''), Standard Test Methods for Analysis of Wood Fuels, Approved November 1, 2006; IBR approved for § 80.1426(f)(7)(v)(A).

(8) ASTM D 975–15, Standard Specification for Diesel Fuel Oils, Approved March 1, 2015; IBR approved for §§ 80.1401, 80.1426(f), 80.1450(b), 80.1451(b), and 80.1454(l).

■ 60. Section 80.1469 is amended by:

■ a. Revising paragraphs (c)(1)(ii), (vi), and (vii);

■ b. Adding paragraphs (c)(4)(iv) and (c)(6); and

■ c. Revising paragraphs (e)(3) and (4), (f)(1) introductory text, and (f)(1)(i).

The revisions and additions read as follows:

§ 80.1469 Requirements for Quality Assurance Plans.

* * * * *

(c) * * *

(1) * * *

(ii) If applicable, plans under § 80.1426(f)(5)(ii) are accepted and up to date.

* * * * *

(vi) Feedstock(s) and biointermediate(s) are consistent with production process and D code being used as permitted under Table 1 to § 80.1426 or a petition approved through § 80.1416, and is consistent with information recorded in EMTS.

(vii) Feedstock(s) and biointermediate(s) are not renewable fuel for which RINs were previously generated.

* * * * *

(4) * * *

(iv) Verify that RINs that needed to be separated under § 80.1429(b)(11) and RINs that must be retired under § 80.1433 were appropriately separated and retired, as applicable.

* * * * *

(6) *VRD–N components.* In addition to applicable components described in paragraphs (c)(1) through (4) of this section, the independent third-party auditor shall perform the following for any VRD–N prior to the generation of RINs from such volumes:

(i)(A) Verify that the end-user(s) of any VRD–N have converted vehicles and engines to use such fuel under an EPA-approved Clean Alternative Fuel Conversion under 40 CFR part 85, subpart F, if applicable.

(B) Verify documentation demonstrating that end-user(s) can use VRD–N as heating oil or jet fuel, if applicable.

(ii) Verify that any VRD–N has been used by the end-user(s) of the VRD–N as transportation fuel, heating oil, or jet fuel.

(iii) Ensure that the VRD–N producer did not generate RINs for any volume of VRD–N prior to verification by an independent third-party auditor.

(iv) Independent third-party auditors shall not use representative sampling as described in paragraph (c)(5) of this section for the verification of VRD–N.

* * * * *

(e) * * *

(3) A QAP is approved on the date that the EPA notifies the third-party independent auditor of such approval or if all of the conditions specified in § 80.1450(g)(10) are met.

(4) The EPA may revoke its approval of a QAP, in whole or in part (*e.g.,* QAP-specific feedstocks or process pathways), for cause, including, but not limited to, an EPA determination that the approved QAP has proven to be inadequate in practice.

* * * * *

(f) * * *

(1) A new QAP shall be submitted to the EPA according to paragraph (e) of this section and the third-party auditor shall update their registration according to § 80.1450(g)(9) whenever any of the following changes occur at a production facility audited by a third-party independent auditor and the auditor does not possess an appropriate pathway-specific QAP that encompasses the changes:

(i) Change in feedstock, including biointermediates.

* * * * *

■ 61. Section 80.1471 is amended by:

■ a. Revising paragraphs (b) introductory text, (b)(1), and (b)(4) through (6);

■ b. Adding paragraphs (b)(8) through (14);
■ c. Revising paragraphs (e) introductory text and (e)(4); and
■ d. Adding paragraph (e)(5).

The revisions and additions read as follows:

§ 80.1471 Requirements for QAP auditors.

* * * * *

(b) To be considered an independent third-party auditor under this section, all of the following conditions must be met:

(1) The independent third-party auditor and its contractors and subcontractors shall not be owned or operated by the renewable fuel producer, foreign ethanol producer, or biointermediate producer, or any subsidiary or employee of the renewable fuel producer, foreign ethanol producer, or biointermediate producer.

* * * * *

(4) The independent third-party auditor and its contractors and subcontractors shall be free from any interest or the appearance of any interest in the renewable fuel producer, foreign ethanol producer, or biointermediate producer's business.

(5) The renewable fuel producer, foreign ethanol producer, or biointermediate producer shall be free from any interest or the appearance of any interest in the third-party auditor's business and the businesses of the third-party auditor's contractors and subcontractors.

(6) The independent third-party auditor and its contractors and subcontractors shall not have performed an attest engagement under § 80.1464 for the renewable fuel producer, foreign ethanol producer, or foreign renewable fuel producer in the same calendar year it performed a QAP audit pursuant to § 80.1472 for the same entities.

* * * * *

(8) The independent third-party auditor and its contractors and subcontractors shall act impartially when performing all activities under this section.

(9) The independent third-party auditor and its contractors and subcontractors shall be free from any interest in the renewable fuel producer, foreign ethanol producer, or biointermediate producer's business and receive no financial benefit from the outcome of the registration, apart from payment for the auditing services.

(10) The independent third-party auditor and its contractors and subcontractors shall not have conducted past research, development, design, construction, or consulting for the renewable fuel producer, foreign ethanol producer, or biointermediate producer within the last three years. For purposes of this requirement, consulting does not include performing or participating in verification activities pursuant to this section.

(11) The independent third-party auditor and its contractors and subcontractors shall not provide other business or consulting services to the renewable fuel producer, foreign ethanol producer, or biointermediate producer, including advice or assistance to implement the findings or recommendations in an audit report, for a period of at least three years following submission of the its final QAP audit.

(12) The independent third-party auditor and its contractors and subcontractors shall ensure that all personnel involved in the third-party audit (including the verification activities) under this section do not accept future employment with the owner or operator of the renewable fuel producer, foreign ethanol producer, or biointermediate producer for a period of at least three years. For purposes of this requirement, employment does not include performing or participating in the third-party audit (including the verification activities) pursuant to § 80.1472.

(13) The independent third-party auditor and its contractors and subcontractors shall have written policies and procedures to ensure that the independent third-party auditor and all personnel under the independent third-party auditor's direction or supervision comply with the competency, independence, and impartiality requirements of this section.

(14) The independent third-party auditor and its contractors and subcontractors shall not have performed an engineering review under § 80.1450(b)(2) for the renewable fuel producer, foreign ethanol producer, or biointermediate producer.

* * * * *

(e) The independent third-party auditor shall identify RINs generated from a renewable fuel producer as having been verified under a QAP.

* * * * *

(4) The independent third-party auditor shall not identify RINs generated from a renewable fuel producer as having been verified under a QAP if a revised QAP must be submitted to and approved by EPA under § 80.1469(f).

(5) The independent third-party auditor shall not identify RINs generated for renewable fuel produced using a biointermediate as having been verified under a QAP unless the biointermediate used to produce the renewable fuel was verified under an approved QAP pursuant to § 80.1476.

* * * * *

■ 62. Section 80.1472 is amended by revising paragraphs (b)(3)(i) introductory text, (b)(3)(ii)(B), and (b)(3)(iii) and adding paragraph (b)(3)(v) to read as follows:

§ 80.1472 Requirements for quality assurance audits.

* * * * *

(b) * * *

(3) * * *

(i) As applicable, the independent third-party auditor shall conduct an on-site visit at the renewable fuel production facility, foreign ethanol production facility, or biointermediate production facility:

* * * * *

(ii) * * *

(B) 380 days after the previous on-site visit if a previously approved (by EPA) remote monitoring system is in place at the renewable fuel production facility, foreign ethanol production facility, and biointermediate production facility, as applicable. The 380-day period shall start the day after the previous on-site visit ends.

(iii) An on-site visit shall include verification of all QAP elements that require inspection or evaluation of the physical attributes of the renewable fuel production facility, foreign ethanol production facility, or biointermediate production facility, as applicable.

* * * * *

(v) Any on-site visit specified in paragraph (b)(3)(i) of this section shall occur while the facility is producing renewable fuel, undenatured ethanol, or a biointermediate. If the facility is not operational at the time of the third-party on-site visit, then all of the following requirements apply:

(A) The responsible corporate officer for the renewable fuel producer, foreign ethanol producer, or biointermediate producer must provide the third-party auditor with a signed affidavit explaining why the facility is not operational.

(B) If the facility is not operational because of a maintenance issue, the renewable fuel producer, foreign ethanol producer, or biointermediate producer must provide the third-party auditor with supporting written documentation of the maintenance issue.

(C) The independent third-party auditor shall include the reason why the facility was not operational in their

report under § 80.1451(g)(2) and keep the related affidavit pursuant to the recordkeeping requirements under § 80.1454(m).

(D) The independent third-party auditor shall not verify RINs for the renewable fuel producer under § 80.1471(e) until after an on-site visit occurs while the facility is operational.

■ 63. Section 80.1474 is amended by redesignating paragraph (g) as paragraph (h) and adding a new paragraph (g) to read as follows:

§ 80.1474 Replacement requirements for invalidly generated RINs.

* * * * *

(g) *PIRs for RINs generated from a CCS pathway after a surface leak.* (1) Renewable fuel producers that generate RINs using a CCS pathway must notify EPA via the EMTS support line (*support@epamts-support.com*) within 24 hours of notification of the detection of any occurrence of surface leakage from the geologic sequestration facility. All RINs generated within the five years preceding the surface leak are PIRs. Within 30 days, the producer shall submit to EPA a remediation plan for EPA approval. The explanation must contain the following:

(i) The date(s) the surface leak occurred.

(ii) The facility identification number associated with the 40 CFR part 98, subpart RR, annual GHG report of the geologic sequestration facility.

(iii) The facility identification number associated with the 40 CFR part 98, subpart PP, annual GHG report of the renewable fuel production facility.

(iv) A detailed description of how the leak occurred.

(v) The amount of CO_2 that leaked.

(vi) A description of corrective actions that when taken, would remediate the surface leak.

(vii) A list of all PIRs affected by the surface leak.

(viii) The original calculated greenhouse gas emissions for each affected batch of renewable fuel.

(ix) The updated calculated greenhouse gas emissions for each affected batch of renewable fuel that accounts for the surface leak.

(x) A plan detailing how the RIN generator intends to remediate all PIRs generated as a result of the surface leak.

(xi) A demonstration from the renewable fuel producer that all necessary steps are being taken to ensure there will be no CO_2 emissions through any potential surface leakage pathways identified in an EPA-approved monitoring, reporting, and verification plan as described in 40 CFR 98.448 that would cause the lifecycle greenhouse gas emissions to exceed the threshold value required for the approved pathway under § 80.1416.

(xii) Any other information requested by EPA.

(2) If EPA determines that the surface leak has caused the PIR(s) to be invalid, the PIR generator must retire the PIR or a valid RIN following the requirements of paragraph (d) of this section within 30 days of notification by EPA.

* * * * *

■ 64. Section 80.1475 is added to read as follows:

§ 80.1475 Requirements for biointermediate producers.

Biointermediate producers shall comply with the following requirements:

(a) *Registration.* No later than the effective date of the final rule, or 60 days prior to the transfer of any biointermediate to be used in the production of a renewable fuel for which RINs may be generated, biointermediate producers shall register with EPA pursuant to the requirements of § 80.1450(b).

(b) *Reporting.* Beginning on the effective date of the final rule, biointermediate producers shall comply with the reporting requirements pursuant to § 80.1451(i).

(c) *Recordkeeping.* Beginning on the effective date of the final rule, biointermediate producers shall comply with the recordkeeping requirements pursuant to § 80.1454(n).

(d) *PTDs.* Beginning on the effective date of the final rule, biointermediate producers shall comply with the PTD requirements pursuant to § 80.1453(e).

(e) *Quality Assurance Plans.* Until January 1, 2018, or a later date designated by EPA, biointermediate producers shall have an approved quality assurance plan pursuant to § 80.1476(b). Beginning January 1, 2018, or a later date designated by EPA, biointermediate produces may have an approved quality assurance plan pursuant to § 80.1476(b), but are not required to do so.

(f) *Attest engagements.* Beginning on the effective date of the final rule, biointermediate producers shall comply with the annual attest engagement requirements pursuant to § 80.1464(h).

(g) *Interim implementation facility limitation.* (1) Until January 1, 2018, or a later date designated by EPA, a biointermediate producer shall be limited to designating and transferring a biointermediate to a single renewable fuel production facility.

(2) Beginning January 1, 2018, or a later date designated by EPA, a biointermediate producer may designate and transfer a biointermediate to more than one renewable fuel production facility.

(3) The EPA in its sole discretion may allow a biointermediate producer to designate and transfer a biointermediate to more than one renewable fuel production facility prior to January 1, 2018, or a later date designated by EPA.

(h) *Batch numbers.* Every batch of biointermediate produced or imported at a biointermediate production facility shall be assigned a number (the ''batch number''), consisting of the EPA-assigned company registration number, the EPA facility registration number, the last two digits of the year in which the batch was produced, and a unique number for the batch, beginning with the number one for the first batch produced or imported each calendar year and each subsequent batch during the calendar year being assigned the next sequential number (*e.g.,* 4321–54321–95–000001, 4321–54321–95–000002, etc.). An alternative batch numbering protocol may be used as approved by the Administrator.

(i) *Designation.* Every batch of biointermediate produced or imported at a biointermediate production facility shall be designated for use in the production of a renewable fuel in accordance with the biointermediate producer's registration under § 80.1450. The designation for the batch of biointermediate shall be clearly indicated on PTDs for the biointermediate as described in § 80.1453(e)(6).

■ 65. Section 80.1476 is added to read as follows:

§ 80.1476 Requirements for QAPs for biointermediate producers.

(a) Independent third-party auditors that verify biointermediate production must meet the requirements of § 80.1471(a) through (c) and (g) through (h).

(b) QAPs approved by EPA to verify biointermediate production must meet the requirements in § 80.1469(c) through (f), as applicable.

(c) Quality assurance audits, when performed, shall be conducted in accordance with the requirements in § 80.1472(a) and (b)(3).

(d)(1) If a third-party auditor identifies a potentially improperly produced biointermediate, the third-party auditor shall notify EPA, the biointermediate producer, and any renewable fuel producers that may have been transferred the biointermediate in writing within five business days of the identification, including an initial explanation of why the biointermediate may have been improperly produced.

(2) If RINs were generated from the potentially improperly produced biointermediate, the RIN generator shall follow the identification and treatment of PIR procedures as specified in § 80.1474.

(e) For the generation of Q–RINs for renewable fuels that were produced from a biointermediate, the biointermediate must be verified under an approved QAP as described in paragraph (b) of this section and the RIN generating facility must be verified under an approved QAP as described in § 80.1469.

■ 66. Section 80.1477 is added to read as follows:

§ 80.1477 Requirements for foreign biointermediate producers and importers.

(a) *Foreign biointermediate producer.* For purposes of this subpart, a foreign biointermediate producer 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 produce biointermediate for use in the production of renewable fuel by a RIN-generating renewable fuel producer.

(b) *Foreign biointermediate producer requirements.* Any foreign biointermediate producer must meet all requirements that apply to biointermediate producers under this subpart as a condition of being approved as a foreign biointermediate producer under this subpart.

(c) *Foreign biointermediate producer commitments.* Any foreign biointermediate producer must commit to the following provisions as a condition of being approved as a foreign biointermediate producer under this subpart:

(1) Any EPA inspector or auditor must be given full, complete, and immediate access to conduct inspections and audits of the foreign biointermediate 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) Biointermediate is produced.

(B) Documents related to foreign biointermediate producer operations are kept.

(C) Biointermediate is stored or transported between the foreign biointermediate producer and the renewable fuel producer, 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 biointermediate produced and/or delivered to renewable fuel production facilities.

(B) Transfers of title or custody to the biointermediate.

(C) 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 biointermediate 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 biointermediate producer or any employee of the foreign biointermediate 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 biointermediate producer or any employee of the foreign biointermediate producer related to the provisions of this section.

(5) Applying to be an approved foreign biointermediate producer under this section, or producing or exporting biointermediate 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 biointermediate 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 biointermediate 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 biointermediate 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 shall be signed by the owner or president of the foreign biointermediate producer company.

(8) In any case where the biointermediate produced at a foreign biointermediate production facility is stored or transported by another company between the production facility and the vessel that transports the renewable fuel to the United States, the foreign biointermediate producer shall obtain from each such other company a commitment that meets the requirements specified in paragraphs (c)(1) through (7) of this section, and these commitments shall be included in the foreign biointermediate producer's application to be an approved foreign biointermediate producer under this subpart.

(d) *Sovereign immunity.* By submitting an application to be an approved foreign biointermediate producer under this subpart, or by producing and exporting biointermediate fuel to the United States under such approval, the foreign biointermediate 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 biointermediate 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 biointermediate 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).

(e) *English language reports.* Any document submitted to EPA by a foreign biointermediate producer must be in English, or must include an English language translation.

(f) *Foreign biointermediate producer contractual relationship.* Any foreign biointermediate producer must establish a contractual relationship with the RIN-generating renewable fuel producer prior to the sale of a biointermediate. Any foreign biointermediate producer must retain contracts and documents memorializing the sale of biointermediates for five years from the date they were created, and must deliver such records to the Administrator upon request.

(g) *Withdrawal or suspension of foreign biointermediate producer approval.* EPA may withdraw or suspend a foreign biointermediate producer's approval where any of the following occur:

(1) A foreign biointermediate producer fails to meet any requirement of this section.

(2) A foreign government fails to allow EPA inspections or audits as provided in paragraph (c)(1) of this section.

(3) A foreign biointermediate producer asserts a claim of, or a right to claim, sovereign immunity in an action to enforce the requirements in this subpart.

(h) *Additional requirements for applications, reports, and certificates.* Any application for approval as a foreign biointermediate producer, 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 biointermediate producer company, or by that person's immediate designee, and must contain the following declaration:

(i) ''I hereby certify:

(A) That I have actual authority to sign on behalf of and to bind [NAME OF FOREIGN BIOINTERMEDIATE PRODUCER] with regard to all statements contained herein;

(B) 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

(C) 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.

(ii) I affirm that I have read and understand the provisions of 40 CFR part 80, subpart M, including 40 CFR 80.1465 apply to [NAME OF FOREIGN BIOINTERMEDIATE 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.''

(i) *Requirements for biointermediate importers.* Any biointermediate importer must meet all the following requirements:

(1) For each biointermediate batch, any biointermediate importer shall have an independent third party do all the following:

(i) Determine the volume of biointermediate in the vessel.

(ii) Determine the name and EPA-assigned registration number of the foreign biointermediate producer that produced the biointermediate.

(iii) Determine the name and country of registration of the vessel used to transport the biointermediate to the United States.

(iv) Determine the date and time the vessel arrives at the United States port of entry.

(2) Any biointermediate importer shall submit reports within 30 days following the date any vessel transporting biointermediate arrives at the United States port of entry to all the following:

(i) The Administrator, containing the information determined under paragraph (h)(1) of this section.

(ii) The foreign biointermediate producer, containing the information determined under paragraph (h)(1) of this section, and including identification of the port at which the product was offloaded.

(3) The biointermediate importer and the third-party auditor must keep records of the audits and reports required under paragraphs (h)(1) and (2) of this section for five years from the date of creation.

■ 67. Section 80.1478 is added to read as follows:

§ 80.1478 Requirements for biogas producers.

Biogas producers shall comply with the following requirements:

(a) *Registration.* (1) No later than the effective date of the final rule, or 60 days prior to the production of biogas for the generation of RINs under § 80.1426, biogas producers must register either as a renewable fuel producer or a biointermediate producer pursuant to the requirements of § 80.1450(b).

(2) No later than the effective date of the final rule, or 60 days prior to the generation of RINs from biogas produced from a biogas producer, whichever is later, biogas producers and the RIN generating party must associate in the EPA's Central Data Exchange using forms and procedures as prescribed by the Administrator.

(3) Biogas producers must update their registrations as described in § 80.1450(d).

(b) *Recordkeeping.* In addition to any records required to be maintained under § 80.1454(k), biogas producers must keep applicable records related to the registration described in paragraph (a) of this section pursuant to either § 80.1454(b)(6) or (n)(4), as applicable, for a period of five years from the date those records were created.

(c) *RIN Generation.* (1) Biogas producers that register as renewable fuel producers must generate RINs in accordance with applicable requirements in § 80.1426 and satisfy all applicable requirements in this subpart for renewable fuels producers.

(2) Biogas producers that register as biointermediate producers shall not generate RINs.

(3) Renewable fuel producers shall only generate RINs for renewable fuel produced from biogas sourced from a biogas producer that satisfies the requirements of this section.

(d) *Reporting.* (1) Biogas producers that register as renewable fuel producers shall submit reports to the EPA as described in § 80.1451(b) and (c), as applicable.

(2) Biogas producers that register as biointermediate producers shall submit reports to the EPA as described in § 80.1451(i).

(e) *Attest Engagements.* (1) Biogas producers that register as renewable fuel producers shall comply with annual attest engagement requirements as described in § 80.1464(b).

(2) Biogas producers that register as biointermediate producers shall comply with annual attest engagement requirements as described in § 80.1464(h).

(f) *Quality Assurance Plans.* Biogas producers that register as biointermediate producers do not need to have quality assurance plans as described in § 80.1475(e).

(g) *Interim Implementation Facility Limitation.* The interim implementation facility limitation as described in § 80.1475(g) does not apply to biogas producers that register as biointermediate producers.

(h) *Designation.* Biogas produced by a biogas producer that has registered as a

biointermediate producer must be designated as described in § 80.1475(i).

(i) *Prohibited acts.* Biogas producers are prohibited from the acts described in § 80.1460.

(j) *Liability.* Biogas producers are liable for violations as described in § 80.1461(e).

■ 68. Section 80.1479 is added to read as follows:

§ 80.1479 Requirements for VRD producers and blenders.

(a) *Requirements for VRD–N producers.* (1) The VRD–N producer shall generate RINs.

(2) The VRD–N producer must satisfy all requirements specified in this subpart for renewable fuel producers (including but not limited to registration, recordkeeping, and reporting requirements).

(3) RINs may only be generated for VRD–N after an independent third-party auditor has verified the use of the fuel as transportation fuel, heating oil, or jet fuel under an EPA-approved QAP as described in § 80.1469.

(b) *Requirements for VRD–B producers and VRD blenders.* (1) Only parties that are VRD blenders and are not VRD producers may generate RINs for VRD–B.

(2) RINs shall not be assigned to finished fuel, but shall be treated as separated RINs immediately upon generation.

(3) VRD blenders must satisfy all requirements specified in this subpart for renewable fuel producers that are using a biointermediate (including, but not limited to, registration, recordkeeping, and reporting requirements). In applying such requirements, the facility at which VRD–B is blended with petroleum diesel shall be considered the renewable fuel production facility and the VRD–B producer shall be considered the biointermediate producer.

(4) VRD–B producers must satisfy the requirements of paragraph (c) of this section.

(c) *Additional requirements for VRD–B producers.* VRD–B producers must meet the requirements in paragraphs (c)(1) through (11) of this section. For the purposes of the other sections of this subpart reference in this paragraph (c), VRD–B producers are considered to be biointermediate producers.

(1) *Registration.* No later than the effective date of this rule, or 60 days prior to the production of VRD–B, whichever is later, VRD–B producers must register with the EPA in accordance with the provisions in § 80.1450(b) that apply to biointermediate producers.

(2) *Reporting.* VRD–B producers shall submit reports to the EPA as described in § 80.1451(i).

(3) *Recordkeeping.* VRD–B producers must keep records specified in § 80.1454(n) and any additional records referenced therein.

(4) *Product transfer documents.* VRD–B producers shall comply with the product transfer document requirements specified in § 80.1453(e)(1) through (8). In addition, each PTD shall include the following statement: ''This volume of viscous renewable diesel is designated and intended for blending with petroleum diesel to produce transportation fuel, heating oil or jet fuel.''

(5) *Attest engagements.* VRD–B producers shall comply with the annual attest engagement requirements specified in § 80.1464(h).

(6) *Quality assurance plans.* VRD–B producers must have quality assurance plans as specified in § 80.1475(e).

(7) *Interim implementation facility limitation.* The interim implementation facility limitation specified in § 80.1475(g) applies to VRD–B producers.

(8) *RIN generation.* VRD–B producers are prohibited from generating RINs for VRD–B.

(9) *Prohibited acts.* VRD–B producers are prohibited from the acts specified in § 80.1460.

(10) *Liability.* VRD–B producers are liable for violations specified in § 80.1461(e).

(11) *Exemption for producers of straight vegetable oil for use as a feedstock.* Producers of straight vegetable oil that is used as a feedstock to produce biodiesel are not subject to the requirements of this section.

Subpart N—Additional Requirements for Gasoline-Ethanol Blends, Ethanol Flex Fuel, and Natural Gasoline Ethanol Flex Fuel Blendstock

■ 69. The subpart N heading is revised to read as set forth above.

■ 70. Section 80.1500 is revised to read as follows:

§ 80.1500 Definitions.

(a) Unless otherwise defined in paragraph (b) of this section, the definitions in § 80.2 apply to this subpart, including, but not limited to, the definitions for the following terms:

Carrier (§ 80.2(t))
Conventional gasoline blendstock for oxygenate blending or CBOB (§ 80.2(aaaa))
Conventional gasoline (§ 80.2(ff))
Denatured fuel ethanol or DFE (§ 80.2(vvv))
Distributor (§ 80.2(l))
Ethanol blender (§ 80.2(v))
Ethanol flex fuel or EFF (§ 80.2(q))
Gasoline (§ 80.2(c))
Importer (§ 80.2(r))
Natural gasoline ethanol flex fuel blendstock (§ 80.2(aa))
Oxygenate blender (§ 80.2(mm))
Oxygenate blending facility (§ 80.2(ll))
Refiner (§ 80.2(i))
Refinery (§ 80.2(h))
Reformulated gasoline (§ 80.2(ee))
Reformulated gasoline blendstock for oxygenate blending or RBOB (§ 80.2(kk))
Retail outlet (§ 80.2(j))
Retailer (§ 80.2(k))
Wholesale purchaser-consumer (§ 80.2(o))

(b) The following definitions apply for the purposes of this subpart:

Batch means a quantity of ethanol flex fuel or natural gasoline ethanol flex fuel blendstock that is homogeneous with regard to those properties that are specified for these fuels.

Blender pump means a fuel dispenser at a blender pump-refinery.

Blender pump-refiner means any person who owns, leases, operates, controls, or supervises a blender pump-refinery.

Blender pump-refinery means a retail outlet or wholesale purchaser-consumer facility where, in the process of fueling a vehicle, engine, or portable fuel container, certified E0, E10, or E15 is blended with certified ethanol flex fuel to produce a fuel pursuant to the requirements of § 80.1523 (for ethanol flex fuel) or § 80.1530 (for gasoline) and other provisions of this subpart.

California ethanol flex fuel means ethanol flex fuel that meets the requirements of § 80.1558.

Certified natural gasoline ethanol flex fuel blendstock means natural gasoline ethanol flex fuel blendstock that has been certified as meeting the standards and requirements in § 80.1524.

Crude oil refinery means a facility that refines gasoline and or diesel fuel using crude oil as a feedstock.

E0 means a gasoline that contains no ethanol.

E10 means gasoline that contains at least 9 and no more than 10 volume percent ethanol.

E15 means gasoline that contains greater than 10 volume percent ethanol and no more than 15 volume percent ethanol.

Ethanol flex fuel additive means any additive that is added to, intended to be added to, used in, or offered for use in ethanol flex fuel or in flex-fuel vehicle or engine fuel systems pursuant to the provisions of § 80.1525.

Ethanol flex fuel additive manufacturer means any person who produces, manufactures, or imports an ethanol flex fuel additive and/or sells or imports for sale such additive under the person's own name.

Ethanol flex fuel bulk blender-refiner means any person who owns, leases, operates, controls, or supervises an ethanol flex fuel bulk blender-refinery.

Ethanol flex fuel bulk blender-refinery means any facility upstream of a retail outlet or wholesale purchaser-consumer facility, including but not limited to, a plant, tanker truck, or vessel where ethanol flex fuel is produced by combining blendstocks pursuant to the provisions of § 80.1522 and other requirements in this subpart.

Ethanol flex fuel full-refiner means any person who owns, leases, operates, controls, or supervises an ethanol flex fuel full-refinery.

Ethanol flex fuel full-refinery means any facility upstream of a retail outlet or wholesale purchaser-consumer facility, including but not limited to, a plant, tanker truck, or vessel where ethanol flex fuel is produced by combining blendstocks pursuant to the provisions of § 80.1521 and other requirements in this subpart.

Ethanol flex fuel import facility means any facility where ethanol flex fuel is imported from a foreign country into the United States (including the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands).

Ethanol flex fuel importer means any person who owns, leases, operates, controls, or supervises an ethanol flex fuel import facility.

Ethanol flex fuel refiner means any person who owns, leases, operates, controls, or supervises an ethanol flex fuel refinery.

Ethanol flex fuel refinery means any facility, including but not limited to, a plant, tanker truck, vessel, ethanol flex fuel retail station, or wholesale purchaser-consumer facility where ethanol flex fuel is produced, including any facility at which blendstocks are combined to produce ethanol flex fuel pursuant to the requirements of § 80.1520 and other provisions of this subpart, including ethanol flex fuel full-refineries, ethanol flex fuel bulk blender-refineries, and blender pump-refineries.

Ethanol flex fuel retail station means any establishment where ethanol flex fuel is sold or offered for sale for use in flex-fuel vehicles and flex-fuel engines.

Ethanol importer means a person who brings denatured ethanol into the United States (including from the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Northern Mariana Islands) for use in motor vehicles and nonroad engines.

Ethanol producer means any person who owns, leases, operates, controls, or supervises a facility that produces ethanol for use in motor vehicles or nonroad engines.

Flex-fuel engine has the same meaning as *flexible-fuel engine* as defined in 40 CFR 1054.801.

Flex-fuel vehicle has the same meaning as *flexible fuel vehicle* as defined in 40 CFR 86.1803–01.

Fuel dispenser means the apparatus used to dispense fuel into motor vehicles or nonroad vehicles, engines or equipment, or into a portable fuel container as defined at 40 CFR 59.680.

Natural gas processing plant means a facility designed to ''clean'' raw natural gas by separating impurities and various non-methane hydrocarbons and fluids to produce what is known as ''pipeline quality'' dry natural gas. A gas processing plant is used to recover natural gas liquids, including natural gasoline, and to remove other substances such as sulfur and benzene as needed.

Natural gasoline ethanol flex fuel blendstock importer means any person who imports natural gasoline ethanol flex fuel blendstock is imported from a foreign country into the United States (including the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands).

Natural gasoline ethanol flex fuel blendstock refiner means any person who owns, leases, operates, controls, or supervises a natural gasoline ethanol flex fuel blendstock refinery.

Natural gasoline ethanol flex fuel blendstock refinery means a natural gas processing plant or crude oil refinery that produces natural gasoline ethanol flex fuel blendstock.

Survey series means the four quarterly surveys that comprise a survey program.

Sampling strata means the three types of areas sampled during a survey which include the following:

(i) Densely populated areas;

(ii) Transportation corridors; and

(iii) Remaining areas.

Uncertified natural gasoline ethanol flex fuel blendstock means natural gasoline ethanol flex fuel blendstock that meets the standards and requirements in § 80.1521(b)(5).

Undenatured ethanol means an alcohol of the chemical formula C_2H_6O that does not contain an ethanol denaturant to make it unfit for human consumption.

§§ 80.1502, 80.1503, 80.1504, 80.1505, 80.1506, 80.1507, and 80.1508 [Redesignated as §§ 80.1561, 80.1563, 80.1504, 80.1565, 80.1566, 80.1567, and 80.1568]

■ 71a. Sections 80.1502, 80.1503, 80.1504, 80.1505, 80.1506, 80.1507, and 80.1508 are redesignated as §§ 80.1561, 80.1563, 80.1504, 80.1565, 80.1566, 80.1567, and 80.1568, respectively.

§ 80.1501 [Redesignated as § 80.1502]

■ 71b. Section 80.1501 is redesignated as section 80.1502.

§ 80.1509 [Redesignated as § 80.1503]

■ 71c. Section 80.1509 is redesignated as section 80.1503.

■ 72. A new section 80.1501 is added to read as follows:

§ 80.1501 Fuels subject to the provisions of this subpart.

(a) The following fuels are subject to the standards and requirements of this subpart:

(1) Reformulated and conventional gasoline, RBOB, and CBOB (collectively called ''gasoline'' unless otherwise specified).

(2) Any blendstock blended with PCG.

(3) Oxygenates blended with gasoline, RBOB, or CBOB.

(4) Ethanol flex fuel.

(5) Certified and uncertified natural gasoline ethanol flex fuel blendstock.

(b) The following fuels are not subject to the standards and requirements of this subpart:

(1) Gasoline and ethanol flex fuel that is used to fuel aircraft, racing vehicles, or racing boats that are used only in sanctioned racing events, provided that the following requirements are met:

(i) Product transfer documents associated with such gasoline and ethanol flex fuel, and labels from any pump stand from which such gasoline and ethanol flex fuel is dispensed, identify the gasoline and ethanol flex fuel either as gasoline or ethanol flex fuel that is restricted for use in aircraft, or as gasoline or ethanol flex fuel that is restricted for use in racing motor vehicles or racing boats that are used only in sanctioned racing events.

(ii) The gasoline and ethanol flex fuel is completely segregated from all other gasoline and ethanol flex fuel throughout production, distribution, and sale to the ultimate consumer.

(iii) The gasoline and ethanol flex fuel is not made available for use as motor vehicle gasoline and ethanol flex fuel, or dispensed for use in motor vehicles, except for motor vehicles used only in sanctioned racing events.

(2) California gasoline as defined in § 80.1600 and subject to the provisions of § 80.1654.

(3) California ethanol flex fuel as defined in § 80.1500 and subject to the provisions of § 80.1558.

(4) Gasoline and ethanol flex fuel that is exported for sale and use outside the United States.

(5) Exempt fuels under §§ 80.1555 (national security exemptions), 80.1556 (ethanol flex fuel used for research, development, or testing purposes), and 80.1557 (ethanol flex fuel used in American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands).

■ 73. Newly redesignated section 80.1502 is amended by:

■ a. Revising the section heading;

■ b. Revising paragraphs (b)(3)(i) and (b)(5)(i); and

■ c. Removing and reserving paragraph (b)(5)(ii).

The revisions read as follows:

§ 80.1502 Labeling requirements that apply to retailers and wholesale purchaser-consumers of gasoline that contains greater than 10 volume percent ethanol and not more than 15 volume percent ethanol.

* * * * *

(b) * * *

(3) * * *

(i) The word ''ATTENTION'' shall be capitalized in 20-point, black, Helvetica Neue LT 77 Bold Condensed font, and shall be placed in the top 1.25 inches of the label as further described in paragraph (b)(4)(iii) of this section.

* * * * *

(5) * * *

(i) A request for approval of an alternative label shall be sent to the attention of ''E15 Alternative Label Request'' to the address in § 80.10(a).

* * * * *

■ 74. Newly redesignated section 80.1503 is revised to read as follows:

§ 80.1503 Rounding a test result for purposes of this subpart.

The provisions of § 80.9 apply for purposes of determining the ethanol content, sulfur content, benzene content, or Reid vapor pressure (RVP) of any fuel, blendstock, or oxygenate subject to this subpart.

■ 75. A new section 80.1504 is added to read as follows:

§ 80.1504 Implementation dates and standards format for the requirements for ethanol flex fuel and natural gasoline ethanol flex fuel blendstock in this subpart.

(a) *Registration dates.* (1) Any ethanol flex fuel full-refiner, ethanol flex fuel importer, or ethanol flex fuel bulk blender-refiner must register by November 1, 2017, or at least 60 days in advance of the first date that such person will produce or import ethanol flex fuel, whichever is later.

(2) Any natural gasoline ethanol flex fuel blendstock refiner or importer must register by October 1, 2017, or at least 60 days in advance of the first date that such person will produce or import certified natural gasoline ethanol flex fuel blendstock, whichever is later.

(b) *Standards compliance dates.* (1) Any ethanol flex fuel full-refiner, ethanol flex fuel importer, or ethanol flex fuel bulk blender-refiner must comply with the requirements of this subpart by January 1, 2018, or the first date that such person produces or imports ethanol flex fuel, whichever is later. Such parties must also comply with the RVP requirements in § 80.1520(c) from May 1 through September 15 each year beginning May 1, 2018, through September 15, 2018.

(2) Any blender pump-refiner must comply with the requirements of this subpart by February 1, 2018, or the first date that such person blends ethanol flex fuel, whichever is later. Such parties must also comply with the RVP requirements in § 80.1520(c) from June 1 through September 15 each year beginning June 1, 2018, through September 15, 2018.

(3) Any certified natural gasoline ethanol flex fuel blendstock refiner or importer must comply with the requirements of this subpart by December 1, 2017, or the first date that such person produces or imports natural gasoline ethanol flex fuel blendstock, whichever is later.

(4) Any party in the ethanol flex fuel production and distribution system except for retail and wholesale purchaser consumer facilities must comply with the RVP requirements in § 80.1520(c) from May 1 through September 15 each year beginning May 1, 2018, through September 15, 2018.

(5) Any ethanol flex fuel retail or wholesale purchaser consumer facility must comply with the RVP requirements in § 80.1520(c) from June 1 through September 15 each year beginning June 1, 2018, through September 15, 2018.

(c) *Standards format*—(1) *Annual average standards.* (i) An annual average standard is the maximum average level allowed for ethanol flex fuel produced at a refinery or imported by an importer during each calendar year beginning on the date specified in paragraph (b) of this section.

(ii) For annual average standards, the averaging period is a calendar year (January 1 through December 31) or any part thereof during which ethanol flex fuel is produced, imported, sold, offered for sale, dispensed, supplied, offered for supply, stored, or transported for use.

(2) *Per-gallon cap standards.* A per-gallon cap standard is the maximum level allowed for any batch of ethanol flex fuel produced, imported, sold, offered for sale, dispensed, supplied, offered for supply, stored, or transported or any batch of certified natural gasoline ethanol flex fuel blendstock used or made available for use to produce ethanol flex fuel beginning on the date specified in paragraph (b) of this section.

(3) *RVP standards.* The RVP standard is the maximum RVP level allowed for any batch of ethanol flex fuel produced, imported, sold, offered for sale, dispensed, supplied, offered for supply, stored, or transported or any batch of certified natural gasoline ethanol flex fuel blendstock used or made available for use to produce ethanol flex fuel beginning on the date specified in paragraph (b) of this section.

(4) *T90 distillation point and final distillation point.* The T90 distillation point and final distillation point standards are the maximum T90 distillation point and final distillation point allowed for any batch of natural gasoline ethanol flex fuel blendstock used or made available for use to produce ethanol flex fuel beginning on the date specified in paragraph (b) of this section.

(5) *Elemental composition requirements.* The elemental composition requirements apply to any batch of ethanol flex fuel produced, imported, sold, offered for sale, dispensed, supplied, offered for supply, stored, or transported or any batch of certified natural gasoline ethanol flex fuel blendstock used or made available for use to produce ethanol flex fuel beginning on the date specified in paragraph (b) of this section.

§§ 80.1505–80.1519 [Reserved]

■ 76. Reserved §§ 80.1505 through 80.1519 are added.

■ 77. Section 80.1520 is added to read as follows:

§ 80.1520 Standards for ethanol flex fuel.

(a) *Applicability.* All ethanol flex fuel shall meet the requirements of this section beginning on the date specified in § 80.1504(b), unless otherwise provided in this subpart.

(b) *Sulfur, benzene, and elemental composition standards*—(1) *Sulfur content*—(i) *Annual average standard.* (A) For all ethanol flex fuel, the annual average sulfur standard is a maximum of 10.00 ppm.

(B) [Reserved]

(ii) *Per-gallon cap standard.* (A) For ethanol flex fuel produced by an ethanol flex fuel full-refiner, the sulfur per-gallon cap standard is a maximum of 80 ppm.

(B) For all other ethanol flex fuel, the sulfur per-gallon cap standard is a maximum of 95 ppm.

(2) *Benzene content*—(i) *Annual average standard.* (A) For all ethanol flex fuel, the annual average benzene standard is a maximum of 0.62 volume percent.

(B) [Reserved]

(ii) [Reserved]

(3) *Elemental composition requirement.* All ethanol flex fuel shall be composed solely of carbon, hydrogen, oxygen, nitrogen, and/or sulfur, unless a waiver has been granted under 42 U.S.C. 7545(f)(4).

(c) *RVP standard.* Except for ethanol flex fuel produced by a blender pump-refiner satisfying the requirements of § 80.1523, no person may sell, offer for sale, dispense, supply, offer for supply, transport or introduce into commerce ethanol flex fuel that does not comply with the applicable RVP standard as specified in § 80.1531.

■ 78. Section 80.1521 is added to read as follows:

§ 80.1521 Requirements for ethanol flex fuel produced by ethanol flex fuel full-refiners or imported by ethanol flex fuel importers.

(a) *Applicability.* Any ethanol flex fuel full-refiner or ethanol flex fuel importer shall demonstrate compliance with the standards in § 80.1520 by complying with the requirements of this section for all ethanol flex fuel that they produce or import beginning on the date specified in § 80.1504(b). This section does not apply to ethanol flex fuel bulk blender-refiners meeting the requirements in § 80.1522 and ethanol flex fuel blender pump-refiners meeting the requirements is § 80.1523.

(b) *Ethanol flex fuel composition.* Ethanol flex fuel full-refiners and ethanol flex fuel importers may only produce ethanol flex fuel using the following components:

(1) Ethanol that meets the requirements of paragraph (b)(1)(i) or (b)(1)(ii) of this section, as applicable.

(i) Denatured fuel ethanol that meets the requirements of § 80.1610.

(ii) Undenatured ethanol at an ethanol production facility that has a sulfur content not greater than 10 ppm and is composed solely of carbon, hydrogen, nitrogen, oxygen, and sulfur unless a waiver has been granted under 42 U.S.C. 7545(f)(4).

(2) For ethanol flex fuel sold, offered for sale, dispensed, supplied, or offered for supply in areas other than the reformulated gasoline areas described in § 80.70:

(i) Conventional gasoline or CBOB that meets the applicable requirements of this part, including subparts L and O.

(ii) Reformulated gasoline or RBOB that meets the applicable requirements of this part, including subparts D, L, and O.

(3) For ethanol flex fuel sold, offered for sale, dispensed, supplied, or offered for supply in the reformulated gasoline areas described in § 80.70:

(i) Reformulated gasoline or RBOB that meets the applicable requirements of this part, including subparts D, L, and O.

(ii) [Reserved]

(4) Certified natural gasoline ethanol flex fuel blendstock that meets the requirements of § 80.1524.

(5) Uncertified natural gasoline ethanol flex fuel blendstock that meets the following requirements:

(i) *RVP standard.* (A) The maximum RVP standard for uncertified natural gasoline ethanol flex fuel blendstock is 15.0 psi.

(B) Compliance with the RVP standard in paragraph (b)(5)(i)(A) of this section shall be determined by sampling and testing each batch of uncertified natural gasoline ethanol flex fuel blendstock pursuant to § 80.1553(g).

(ii) *T90 distillation point and final distillation point.* (A) The per-gallon T90 distillation point for uncertified natural gasoline ethanol flex fuel blendstock shall be no higher than 135 °C (275 °F). The per-gallon final distillation point for uncertified natural gasoline ethanol flex fuel blendstock shall be no higher than 190 °C (375 °F).

(B) Compliance with the T90 distillation point and final distillation point standards in paragraph (b)(5)(ii)(A) of this section shall be determined by sampling and testing each batch pursuant to § 80.1553(h).

(iii) *Elemental composition requirements.* (A) All uncertified natural gasoline ethanol flex fuel blendstock shall be composed solely of carbon, hydrogen, oxygen, nitrogen, and/or sulfur, unless a waiver has been granted under 42 U.S.C. 7545(f)(4).

(B) To demonstrate compliance with the elemental composition requirements in paragraph (b)(5)(iii)(A) of this section, the uncertified natural gasoline ethanol flex fuel blendstock must have been produced from a processing unit (*e.g.,* a distillation tower or desulfurization unit) at a natural gas processing plant or crude oil refinery and must not contain any additives that are composed of elements other than carbon, hydrogen, oxygen, nitrogen, and sulfur.

(6) The combined concentration of certified and uncertified natural gasoline ethanol flex fuel blendstock blended to produce ethanol flex fuel must not exceed 30 volume percent. This 30 volume percent cap on the amount of natural gasoline that may be blended to produce ethanol flex fuel is in addition to the amount of natural gasoline that may be added to denature the denatured fuel ethanol used as an ethanol flex fuel blendstock pursuant to the requirements of § 80.1610(a)(4).

(7) Ethanol flex fuel additives that meet the requirements of § 80.1525.

(c) *Sulfur content*—(1) *Annual average standard.* Compliance with the annual average sulfur content standard in § 80.1520(b)(1)(i) shall be determined by sampling and testing each batch of ethanol flex fuel pursuant to § 80.1553(e) and calculating the annual average sulfur level in accordance with paragraph (c)(3) of this section.

(2) *Calculation of the annual average sulfur level.* (i) The annual ethanol flex fuel refinery or ethanol flex fuel import facility average ethanol flex fuel sulfur level is calculated as follows:

$$S_a = \frac{\sum_{i=1}^{n} (V_i \times S_i)}{\sum_{i=1}^{n} V_i}$$

Where:

S_a = The ethanol flex fuel refinery or ethanol flex fuel import facility annual average sulfur level, in ppm (mg/kg).

V_i = The volume of ethanol flex fuel produced or imported in batch i, in gallons.

S_i = The sulfur content of batch i determined using the procedure specified in § 80.1553(e), in ppm (mg/kg).

n = The number of batches of ethanol flex fuel produced or imported during the averaging period.

i = Individual batch of ethanol flex fuel produced or imported during the averaging period.

(ii) The annual average sulfur level calculation in paragraph (c)(2)(i) of this section shall be conducted to two decimal places using the rounding procedure specified in § 80.1503.

(3) *Per-gallon cap standard.* Compliance with the sulfur per-gallon cap standard in § 80.1520(b)(1)(ii)(A) shall be determined by sampling and testing each batch of ethanol flex fuel pursuant to § 80.1553(e).

(d) *Benzene content*—(1) *Benzene compliance.* Compliance with the annual average benzene content standard in § 80.1520(b)(2)(i) shall be determined by sampling and testing each batch of ethanol flex fuel pursuant to § 80.1553(f) and calculating the annual average benzene level in

accordance with paragraph (d)(2) of this section.

(2) *Calculation of the annual average benzene level.* (i) The annual ethanol flex fuel refinery or ethanol flex fuel import facility average ethanol flex fuel benzene level is calculated as follows:

$$B_a = \frac{\sum_{i=1}^{n} (V_i \times B_i)}{\sum_{i=1}^{n} V_i}$$

Where:

B_a = The ethanol flex fuel refinery or ethanol flex fuel import facility annual benzene level, in volume percent.

V_i = The volume of ethanol flex fuel produced or imported in batch i, in gallons.

B_i = The benzene content of batch i determined using the procedure specified in § 80.1553(f), in volume percent.

n = The number of batches of ethanol flex fuel produced or imported during the averaging period.

i = Individual batch of ethanol flex fuel produced or imported during the averaging period.

(ii) The annual benzene level calculation in paragraph (d)(2)(i) of this section shall be conducted to two decimal places using the rounding procedure specified in § 80.1503.

(e) *Elemental composition compliance.* Compliance with the elemental composition standard in § 80.1520(b)(3) shall be demonstrated by maintaining records to demonstrate that the only blend components used are compliant with the requirements of paragraph (b) of this section pursuant to the recordkeeping requirements of § 80.1552(a).

(f) *RVP standard compliance.* Compliance with the applicable RVP standard in § 80.1520(c) shall be determined by sampling and testing each batch of ethanol flex fuel pursuant to § 80.1553(g).

(g) *Batch numbering.* Every batch of ethanol flex fuel produced by an ethanol flex fuel full-refiner or imported by an ethanol flex fuel importer shall be assigned a number (the ''batch number''), consisting of the EPA-assigned ethanol flex fuel refiner or ethanol flex fuel importer registration number, the EPA facility registration number, the last two digits of the year in which the batch was produced, and a unique number for the batch, beginning with the number one for the first batch produced or imported each calendar year and each subsequent batch during the calendar year being assigned the next sequential number (*e.g.,* 4321–54321–95–000001, 4321–54321–95–000002, etc.).

■ 79. Section 80.1522 is added to read as follows:

§ 80.1522 Requirements for ethanol flex fuel produced by ethanol flex fuel bulk blender-refiners.

(a) *Applicability.* Any ethanol flex fuel bulk blender-refiner may choose to demonstrate compliance with the standards of § 80.1520 by complying with the requirements of this section for all ethanol flex fuel that they produce beginning on the date specified in § 80.1504(b).

(b) *Ethanol flex fuel composition.* Ethanol flex fuel bulk blender-refiners may only produce ethanol flex fuel using the following components:

(1) Ethanol that meets the requirements of paragraph (b)(1)(i) or (ii) of this section, as applicable.

(i) Denatured fuel ethanol that meets the requirements of § 80.1610.

(ii) Undenatured ethanol at an ethanol production facility that has a sulfur content not greater than 10 ppm and is composed solely of carbon, hydrogen, nitrogen, oxygen, and sulfur unless a waiver has been granted under 42 U.S.C. 7545(f)(4).

(2) For ethanol flex fuel sold, offered for sale, dispensed, supplied, or offered for supply in areas other than the reformulated gasoline areas described in § 80.70:

(i) Conventional gasoline or CBOB that meets the applicable requirements of this part, including subparts L and O.

(ii) Reformulated gasoline or RBOB that meets the applicable requirements of this part, including subparts D, L, and O.

(3) For ethanol flex fuel sold, offered for sale, dispensed, supplied, or offered for supply in the reformulated gasoline areas described in § 80.70:

(i) Reformulated gasoline or RBOB that meets the applicable requirements of this part, including subparts D, L, and O.

(ii) [Reserved]

(4) Certified natural gasoline ethanol flex fuel blendstock that meets the requirements of § 80.1524. The concentration of certified natural gasoline ethanol flex fuel blendstock blended to produce ethanol flex fuel shall be limited to 30 volume percent. This 30 volume percent cap on the amount of natural gasoline that may be blended to produce ethanol flex fuel is in addition to the amount natural gasoline that may be added to denature the denatured fuel ethanol used as an ethanol flex fuel blendstock pursuant to the requirements of § 80.1610(a)(4).

(5) Ethanol flex fuel additives that meet the requirements of § 80.1525.

(c) *Compliance demonstration*—(1) *Sulfur, benzene, and elemental composition compliance.* Compliance with the sulfur content, benzene content, and elemental composition standards in § 80.1520(b) shall be demonstrated by maintaining records for each batch of ethanol flex fuel to demonstrate that the only blend components used are compliant with the requirements of paragraph (b) of this section pursuant to the recordkeeping requirements of § 80.1552(b).

(2) *RVP standard compliance.* Compliance with the applicable RVP standard in § 80.1520(c) shall be determined by sampling and testing each batch of ethanol flex fuel pursuant to § 80.1553(g) or using the alternative provisions of § 80.1553(j).

(d) *Batch numbering.* Every batch of ethanol flex fuel produced by an ethanol flex fuel bulk blender-refiner shall be assigned a number (the ''batch number''), consisting of the EPA-assigned ethanol flex fuel refiner or ethanol flex fuel importer registration number, the EPA facility registration number, the last two digits of the year in which the batch was produced, and a unique number for the batch, beginning with the number one for the first batch produced or imported each calendar year and each subsequent batch during the calendar year being assigned the next sequential number (*e.g.,* 4321–54321–95–000001, 4321–54321–95–000002, etc.).

■ 80. Section 80.1523 is added to read as follows:

§ 80.1523 Requirements for ethanol flex fuel produced by blender pump-refiners.

(a) *Applicability.* Any blender pump-refiner may choose to demonstrate compliance with the standards of § 80.1520 by complying with the requirements of this section for all ethanol flex fuel that they produce beginning on the date specified in § 80.1504(b).

(b) *Ethanol flex fuel composition.* Blender pump-refiners may only produce ethanol flex fuel using the following components:

(1) Ethanol flex fuel produced by an ethanol flex fuel full-refiner or imported by an ethanol flex fuel importer that meets the requirements of §§ 80.1520 and 80.1521, or produced by an ethanol flex fuel bulk blender-refiner that meets the requirements of §§ 80.1520 and 80.1522.

(2) For ethanol flex fuel sold, offered for sale, dispensed, supplied, or offered for supply in areas other than the reformulated gasoline areas described in § 80.70:

(i) Conventional gasoline that meets the applicable requirements of this part, including subparts L and O.

(ii) Reformulated gasoline that meets the applicable requirements of this part, including subparts D, L, and O.

(3) For ethanol flex fuel sold, offered for sale, dispensed, supplied, or offered for supply in the reformulated gasoline areas described in § 80.70:

(i) Reformulated gasoline that meets the applicable requirements of this part, including subparts D, L, and O.

(ii) [Reserved]

(4) Ethanol flex fuel additives that meet the requirements of § 80.1525.

(c) *Compliance demonstration*—(1) *Sulfur, benzene, and elemental composition compliance.* Compliance with the sulfur content, benzene content, and elemental composition standards in § 80.1520(b) shall be demonstrated by maintaining records to demonstrate that the only blend components used are compliant with the requirements of paragraph (b) of this section pursuant to the recordkeeping requirements of § 80.1552(c).

(2) *RVP standard compliance.* Compliance with the applicable RVP standard in § 80.1520(c) shall be demonstrated by maintaining records to demonstrate that the only blend components used are compliant with the requirements of paragraph (b) of this section pursuant to the recordkeeping requirements of § 80.1552(c).

■ 81. Section 80.1524 is added to read as follows:

§ 80.1524 Standards and requirements for certified natural gasoline ethanol flex fuel blendstock.

(a) *Applicability.* All certified natural gasoline ethanol flex fuel blendstock produced, imported, sold, offered for sale, dispensed, supplied, offered for supply, stored, or transported shall meet the requirements of this section beginning on the date specified in § 80.1504(b).

(b) *Sulfur standard.* (1) The sulfur per-gallon cap standard for certified natural gasoline ethanol flex fuel blendstock is a maximum of 10.00 ppm.

(2) The sulfur content of certified natural gasoline ethanol flex fuel blendstock shall be determined by sampling and testing each batch pursuant to § 80.1553(e).

(c) *Benzene standard.* (1) The benzene per-gallon cap standard for certified natural gasoline ethanol flex fuel blendstock is a maximum of 0.62 volume percent.

(2) The benzene content of certified natural gasoline ethanol flex fuel blendstock shall be determined by sampling and testing each batch pursuant to § 80.1553(f).

(d) *RVP standard.* (1) The maximum RVP standard for certified natural gasoline ethanol flex fuel blendstock is 15.0 psi.

(2) Compliance with the RVP standard in paragraph (d)(1) of this section shall be determined by sampling and testing each batch of certified natural gasoline ethanol flex fuel blendstock pursuant to § 80.1553(g).

(e) *T90 distillation point and final distillation point.* (1) The per-gallon T90 distillation point for certified natural gasoline ethanol flex fuel blendstock shall be no higher than 135 °C (275 °F). The per-gallon final distillation point for certified natural gasoline ethanol flex fuel blendstock shall be no higher than 190 °C (375 °F).

(2) Compliance with the T90 distillation point and final distillation point standards in paragraph (e)(1) of this section shall be determined by sampling and testing each batch pursuant to § 80.1553(h).

(f) *Elemental composition requirements.* (1) All certified natural gasoline ethanol flex fuel blendstock shall be composed solely of carbon, hydrogen, oxygen, nitrogen, and/or sulfur, unless a waiver has been granted under 42 U.S.C. 7545(f)(4).

(2) To demonstrate compliance with the elemental composition requirements in paragraph (f)(1) of this section, the uncertified natural gasoline ethanol flex fuel blendstock must have been produced from a processing unit (*e.g.,* a distillation tower or desulfurization unit) at a natural gas processing plant or crude oil refinery.

(g) *Batch numbering.* Every batch of certified natural gasoline ethanol flex fuel blendstock produced by a certified natural gasoline ethanol flex fuel blendstock refiner or imported by a certified natural gasoline ethanol flex fuel blendstock importer shall be assigned a number (the ''batch number''), consisting of the EPA-assigned certified natural gasoline ethanol flex fuel blendstock refiner or certified natural gasoline ethanol flex fuel blendstock importer registration number, the EPA facility registration number, the last two digits of the year in which the batch was produced, and a unique number for the batch, beginning with the number one for the first batch produced or imported each calendar year and each subsequent batch during the calendar year being assigned the next sequential number (*e.g.,* 4321–54321–95–000001, 4321–54321–95–000002, etc.).

(h) Natural gasoline ethanol flex fuel blendstock cannot be sold as gasoline or used as a gasoline blendstock unless the party that uses natural gasoline to manufacture gasoline complies with all applicable gasoline refiner requirements in 40 CFR part 80, including subparts L and O. Natural gasoline ethanol flex fuel blendstock may not be commingled with gasoline unless it is being blended with gasoline by an ethanol flex fuel full-refiner or ethanol flex fuel bulk blender-refiner in the process of producing ethanol flex fuel.

(i) No additives may be added to certified natural gasoline ethanol flex fuel blendstock after the point of production or importation.

■ 82. Section 80.1525 is added to read as follows:

§ 80.1525 Standards and requirements for manufacturers and blenders of additives used in ethanol flex fuel.

(a) Ethanol flex fuel additive manufacturers must meet the following requirements:

(1) Except as otherwise provided, this section applies to any ethanol flex fuel additive manufactured for use in ethanol flex fuel and is sold for use at a concentration of less than 1.0% by volume.

(2) The ethanol flex fuel additive must contribute no more than 3 ppm on a per-gallon basis to the sulfur content of ethanol flex fuel when used at the maximum recommended treatment rate.

(3) The ethanol flex fuel additive manufacturer must maintain records of its additive production quality control activities that demonstrates that the sulfur content of its additive production batches complies with the sulfur requirement in paragraph (a)(2) of this section and make these records available to EPA upon request.

(4) The ethanol flex fuel additive shall be composed solely of carbon, hydrogen, oxygen, nitrogen, and/or sulfur, unless a waiver has be granted under 42 U.S.C. 7545(f)(4).

(5) The maximum treatment rate on the product transfer document for the additive must state all the following:

(i) The maximum concentration.

(ii) The maximum allowed treatment rate that corresponds to the maximum concentration. The maximum allowed concentration must comply with the requirements in paragraph (a)(2) of this section.

(b) The following provisions in paragraphs (b)(1) and (2) of this section apply to parties who are downstream of the ethanol flex fuel refiner or ethanol flex fuel importer and who blend additives into ethanol flex fuel.

(1) On any occasion where an ethanol flex fuel additive blender blends an ethanol flex fuel additive (subject to the requirements of this section) at a concentration of less than 1.0% by volume, it is subject to the prohibitions in § 80.1564 and the ethanol flex fuel sulfur standards of § 80.1520(b)(1).

(2) On any occasion where an ethanol flex fuel additive blender blends an ethanol flex fuel additive at a concentration of 1.0% by volume or greater, it is a fuel manufacturer as defined in § 79.2(d) of this chapter, and is subject to all the provisions that apply to ethanol flex fuel refiners and importers under this subpart.

§§ 80.1526–80.1529 [Reserved]

■ 83. Reserved §§ 80.1526 through 80.1529 are added.

■ 84. Section 80.1530 is added to read as follows:

§ 80.1530 Requirements for E15 gasoline produced by blender pump-refiners.

(a) *Applicability.* (1) Beginning February 1, 2018, and thereafter, a blender pump-refiner that produces E15 may demonstrate compliance with the gasoline registration requirements in 40 CFR part 79 and the gasoline refiner requirements in this part, except those that pertain to the volatility standards for conventional gasoline in subpart B of this part and those that pertain to the hydrocarbon standard for reformulated gasoline in subpart D of this part, by complying with the requirements in paragraph (b) of this section and using only the following components to produce E15:

(i) Ethanol flex fuel produced by an ethanol flex fuel full-refiner or imported by an ethanol flex fuel importer that meets the requirements of §§ 80.1520 and 80.1521, or produced by an ethanol flex fuel bulk blender-refiner that meets the requirements of §§ 80.1520 and 80.1522.

(ii) For E15 sold, offered for sale, dispensed, supplied, or offered for supply in areas other than the reformulated gasoline areas described in § 80.70:

(A) Conventional gasoline that meets the applicable requirements of this part, including subparts L and O.

(B) Reformulated gasoline that meets the applicable requirements of this part, including subparts D, L, and O.

(iii) For E15 sold, offered for sale, dispensed, supplied, or offered for supply in the reformulated gasoline areas described in § 80.70:

(A) Reformulated gasoline that meets the applicable requirements of this part, including subpart D, L, and O.

(B) [Reserved]

(iv) Gasoline additives that meet the requirements of § 80.1613.

(2) Beginning February 1, 2018, and thereafter, a blender pump-refiner that produces E15 may demonstrate compliance with the gasoline registration requirements in 40 CFR part 79 and the gasoline refiner requirements in this part, including those that pertain to the volatility standards for conventional gasoline in subpart B of this part and those that pertain to the hydrocarbon standard for reformulated gasoline in subpart D of this part, by complying with the requirements in paragraph (b) of this section and using only the following components to produce E15:

(i) Ethanol flex fuel produced by an ethanol flex fuel full-refiner or imported by an ethanol flex fuel importer that meets the requirements of §§ 80.1520 and 80.1521, or produced by an ethanol flex fuel bulk blender-refiner that meets the requirements of §§ 80.1520 and 80.1522.

(ii) For E15 sold, offered for sale, dispensed, supplied, or offered for supply in areas where the 1 psi RVP waiver for E10 in § 80.27(d) does not apply other than the reformulated gasoline areas described in § 80.70:

(A) E10 conventional gasoline that meets the applicable requirements of this part, including subparts L and O.

(B) E10 reformulated gasoline that meets the applicable requirements of this part, including subparts D, L, and O.

(iii) For E15 sold, offered for sale, dispensed, supplied, or offered for supply in the reformulated gasoline areas described in § 80.70:

(A) E10 reformulated gasoline that meets the applicable requirements of this part, including subpart D, L, and O.

(B) [Reserved]

(iv) Gasoline additives that meet the requirements of § 80.1613.

(b) *Compliance demonstration.* Compliance with the gasoline composition standards in paragraphs (a)(1) and (a)(2) of this section shall be demonstrated by maintaining records to demonstrate that the only blend components used are compliant with the applicable requirements of paragraphs (a)(1)(i) through (iv) and (a)(2)(i) through (iv) of this section pursuant to the recordkeeping requirements of § 80.1552(c).

■ 85. Section 80.1531 is added to read as follows:

§ 80.1531 Controls and prohibitions on ethanol flex fuel volatility.

(a) *Prohibited activities in 2018 and beyond.* Beginning in 2018 and thereafter, from June 1 through September 15, no person, including without limitation, no retailer or wholesale purchaser-consumer, and from May 1 through September 15, no refiner, importer, distributor, reseller, or carrier shall sell, offer for sale, dispense, supply, offer for supply, transport, or introduce into commerce ethanol flex fuel whose RVP exceeds the applicable standard specified in this section. As used in this section and in § 80.1564, ''applicable standard'' means the standard listed in this paragraph for the state and time period in which the ethanol flex fuel is intended to be dispensed to flexible fuel vehicles.

(1) *Alabama.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(2) *Arizona.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.8 psi standard from June 1 through September 15 in that part of Maricopa county commencing at a point which is the intersection of the eastern line of Range 7 East, Gila and Salt River Baseline and Meridian, and the southern line of Township 2 South, said point is the southeastern corner of the Maricopa Association of Governments Urban Planning Area; thence, running northerly along the eastern line of Range 7 East to a point where the eastern line of Range 7 East intersects the northern line of Township 1 North; thence, running westerly along the northern line of Township 1 North to approximately the southwest corner of the southeast quarter of Section 35, Township 2 North, Range 7 East, said point being the boundary of the Tonto National Forest and Usery Mountain Semi-Regional Park; thence running northerly along the Tonto National Forest Boundary, which is generally the western line of the east half of Sections 26 and 35 of Township 2 North, Range 7 East, to a point which is where the quarter section line intersects with the northern line of Section 26, Township 2 North, Range 7 East, said point also being the northeast corner of the Usery Mountain Semi-Regional Park; thence running westerly along the Tonto National Forest Boundary, which is generally the south line of Sections 19, 20, 21 and 22 and the southern line of the west half of Section 23, Township 2 North, Range 7 East, to a point which is the southwest corner of Section 19, Township 2 North, Range 7 East; thence running northerly along the Tonto National Forest Boundary to a point where the Tonto National Forest Boundary intersects with the eastern boundary of the Salt River Indian Reservation, generally described as the center line of the Salt River Channel; thence running northeasterly and northerly along the common boundary of the Tonto National Forest and the Salt River

Indian Reservation to a point which is the northeast corner of the Salt River Indian Reservation and the southeast corner of the Fort McDowell Indian Reservation; thence running northeasterly along the common boundary between the Tonto National Forest and the Fort McDowell Indian Reservation to a point which is the northeast corner of the Fort McDowell Indian Reservation; thence running southwesterly along the northern boundary of the Fort McDowell Indian Reservation, which line is a common boundary with the Tonto National Forest, to a point where the boundary intersects with the eastern line of Section 12, Township 4 North, Range 6 East; thence running northerly along the eastern line of Range 6 East to a point where the eastern line of Range 6 East intersects with the southern line of Township 5 North, said line is the boundary between the Tonto National Forest and the east boundary of McDowell Mountain Regional Park; thence running westerly along the southern line of Township 5 North to a point where the southern line intersects with the eastern line of Range 5 East which line is the boundary of Tonto National Forest and the north boundary of McDowell Mountain Regional Park; thence running northerly along the eastern line of Range 5 East to a point where the eastern line of Range 5 East intersects with the northern line of Township 5 North, which line is the boundary of the Tonto National Forest; thence running westerly along the northern line of Township 5 North to a point where the northern line of Township 5 North intersects with the easterly line of Range 4 East, said line is the boundary of Tonto National Forest; thence running northerly along the eastern line of Range 4 East to a point where the eastern line of Range 4 East intersects with the northern line of Township 6 North, which line is the boundary of the Tonto National Forest; thence running westerly along the northern line of Township 6 North to a point of intersection with the Maricopa-Yavapai County line, which is generally described in Arizona Revised Statutes Section 11–109 as the center line of the Aqua Fria River (Also the north end of Lake Pleasant); thence running southwesterly and southerly along the Maricopa-Yavapai County line to a point which is described by Arizona Revised Statutes Section 11–109 as being on the center line of the Aqua Fria River, two miles southerly and below the mouth of Humbug Creek; thence running southerly along the center line of Aqua Fria River to the intersection of the center line of the Aqua Fria River and the center line of Beardsley Canal, said point is generally in the northeast quarter of Section 17, Township 5 North, Range 1 East; thence running southwesterly and southerly along the center line of Beardsley Canal to a point which is the center line of Beardsley Canal where it intersects with the center line of Indian School Road; thence running westerly along the center line of West Indian School Road to a point where the center line of West Indian School Road intersects with the center line of North Jackrabbit Trail; thence running southerly along the center line of Jackrabbit Trail approximately nine and three-quarter miles to a point where the center line of Jackrabbit Trail intersects with the Gila River, said point is generally on the north-south quarter section line of Section 8, Township 1 South, Range 2 West; thence running northeasterly and easterly up the Gila River to a point where the Gila River intersects with the northern extension of the western boundary of Estrella Mountain Regional Park, which point is generally the quarter corner of the northern line of Section 31, Township 1 North, Range 1 West; thence running southerly along the extension of the western boundary and along the western boundary of Estrella Mountain Regional Park to a point where the southern extension of the western boundary of Estrella Mountain Regional Park intersects with the southern line of Township 1 South; thence running easterly along the southern line of Township 1 South to a point where the south line of Township 1 South intersects with the western line of Range 1 East, which line is generally the southern boundary of Estrella Mountain Regional Park; thence running southerly along the western line of Range 1 East to the southwest corner of Section 18, Township 2 South, Range 1 East, said line is the western boundary of the Gila River Indian Reservation; thence running easterly along the southern boundary of the Gila River Indian Reservation which is the southern line of Sections 13, 14, 15, 16, 17, and 18, Township 2 South, Range 1 East, to the boundary between Maricopa and Pinal Counties as described in Arizona Revised Statutes Sections 11–109 and 11–113, which is the eastern line of Range 1 East; thence running northerly along the eastern boundary of Range 1 East, which is the common boundary between Maricopa and Pinal Counties, to a point where the eastern line of Range 1 East intersects the Gila River; thence running southerly up the Gila River to a point where the Gila River intersects with the southern line of Township 2 South; thence running easterly along the southern line of Township 2 South to the point of beginning which is a point where the southern line of Township 2 South intersects with the eastern line Range 7 East; except that portion of the area defined by paragraphs 1 through 28 above that lies within the Gila River Indian Reservation.

(3) *Arkansas.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(4) *Colorado.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.8 psi standard from June 1 through September 15 in Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson Counties, and that part of Larimer County that lies south of a line described as follows: Beginning at a point on Larimer County's eastern boundary and Weld County's western boundary intersected by 40 degrees, 42 minutes, and 47.1 seconds north latitude, proceed west to a point defined by the intersection of 40 degrees, 42 minutes, 47.1 seconds north latitude and 105 degrees, 29 minutes, and 40.0 seconds west longitude, thence proceed south on 105 degrees, 29 minutes, 40.0 seconds west longitude to the intersection with 40 degrees, 33 minutes and 17.4 seconds north latitude, thence proceed west on 40 degrees, 33 minutes, 17.4 seconds north latitude until this line intersects Larimer County's western boundary and Grand County's eastern boundary), and part of Weld (That portion of the county that lies south of a line described as follows: Beginning at a point on Weld County's eastern boundary and Logan County's western boundary intersected by 40 degrees, 42 minutes, 47.1 seconds north latitude, proceed west on 40 degrees, 42 minutes, 47.1 seconds north latitude until this line intersects Weld County's western boundary and Larimer County's eastern boundary.

(5) *Connecticut* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard.

(6) *Delaware.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard.

(7) *District of Columbia.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex

fuel that has an RVP that exceeds a 7.0 psi standard.

(8) *Florida.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(9) *Georgia.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.8 psi standard from June 1 through September 15 in Cherokee, Clayton, Cobb, Coweta, DeKalb, Douglas, Fayette, Forsyth, Fulton, Gwinnett, Henry, Paulding, and Rockdale Counties.

(10) *Idaho.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(11) *Illinois.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard in Cook, Du Page, Jersey, Kane, Lake, Madison, McHenry, Monroe, St. Clair, and Will Counties, and the townships of Aux Sable and Goose Lake in Grundy County and Oswego Township in Kendall County.

(12) *Indiana.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard in Lake and Porter Counties.

(13) *Iowa.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(14) *Kansas.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.8 psi standard from June 1 through September 15 in Johnson and Wyandotte Counties.

(15) *Kentucky.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard in Boone, Campbell, Jefferson, and Kenton Counties and the portion of Bullitt county beginning at the intersection of Ky 1020 and the Jefferson-Bullitt County Line proceeding to the east along the county line to the intersection of county road 567 and the Jefferson-Bullitt County Line; proceeding south on county road 567 to the junction with Ky 1116 (also known as Zoneton Road); proceeding to the south on KY 1116 to the junction with Hebron Lane; proceeding to the south on Hebron Lane to Cedar Creek; proceeding south on Cedar Creek to the confluence of Floyds Fork turning southeast along a creek that meets Ky 44 at Stallings Cemetery; proceeding west along Ky 44 to the eastern most point in the Shepherdsville city limits; proceeding south along the Shepherdsville city limits to the Salt River and west to a point across the river from Mooney Lane; proceeding south along Mooney Lane to the junction of Ky 480; proceeding west on Ky 480 to the junction with Ky 2237; proceeding south on Ky 2237 to the junction with Ky 61 and proceeding north on Ky 61 to the junction with Ky 1494; proceeding south on Ky 1494 to the junction with the perimeter of the Fort Knox Military Reservation; proceeding north along the military reservation perimeter to Castleman Branch Road; proceeding north on Castleman Branch Road to Ky 44; proceeding a very short distance west on Ky 44 to a junction with Ky 1020; and proceeding north on Ky 1020 to the beginning, and the portion of Oldham county beginning at the intersection of the Oldham-Jefferson County Line with the southbound lane of Interstate 71; proceeding to the northeast along the southbound lane of Interstate 71 to the intersection of Ky 329 and the southbound lane of Interstate 71; proceeding to the northwest on Ky 329 to the intersection of Zaring Road on Ky 329; proceeding to the east-northeast on Zaring Road to the junction of Cedar Point Road and Zaring Road; proceeding to the north-northeast on Cedar Point Road to the junction of Ky 393 and Cedar Point Road; proceeding to the south-southeast on Ky 393 to the junction of county road 746 (the road on the north side of Reformatory Lake and the Reformatory); proceeding to the east-northeast on county road 746 to the junction with Dawkins Lane (also known as Saddlers Mill Road) and county road 746; proceeding to follow an electric power line east-northeast across from the junction of county road 746 and Dawkins Lane to the east-northeast across Ky 53 on to the La Grange Water Filtration Plant; proceeding on to the east-southeast along the power line then south across Fort Pickens Road to a power substation on Ky 146; proceeding along the power line south across Ky 146 and the Seaboard System Railroad track to adjoin the incorporated city limits of La Grange; then proceeding east then south along the La Grange city limits to a point abutting the north side of Ky 712; proceeding east-southeast on Ky 712 to the junction of Massie School Road and Ky 712; proceeding to the south-southwest and then north-northwest on Massie School Road to the junction of Ky 53 and Massie School Road; proceeding on Ky 53 to the north-northwest to the junction of Moody Lane and Ky 53; proceeding on Moody Lane to the south-southwest until meeting the city limits of La Grange; then briefly proceeding north following the La Grange city limits to the intersection of the northbound lane of Interstate 71 and the La Grange city limits; proceeding southwest on the northbound lane of Interstate 71 until intersecting with the North Fork of Currys Fork; proceeding south-southwest beyond the confluence of Currys Fork to the south-southwest beyond the confluence of Floyds Fork continuing on to the Oldham-Jefferson County Line; and proceeding northwest along the Oldham-Jefferson County Line to the beginning.

(16) *Louisiana.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.8 psi standard from June 1 through September 15 in Ascension, Beauregard, Calcasieu, East Baton Rouge, Iberville, Jefferson, Lafayette, Lafourche, Livingston, Orleans, Point Coupee, St. Bernard, St. Charles, St. James, St. Mary, and West Baton Rouge parishes.

(17) *Maine.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard in Androscoggin, Cumberland, Kennebec, Knox, Lincoln, Sagadahoc, and York Counties.

(18) *Maryland.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard in Anne

Arundel, Baltimore, Calvert, Carroll, Charles, Cecil, Frederick, Harford, Howard, Kent, Montgomery, Prince George's, and Queen Anne's Counties and the City of Baltimore.

(19) *Massachusetts.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard in Barnstable, Berkshire, Bristol, Dukes, Essex, Franklin, Hampden, Hampshire, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester Counties.

(20) *Michigan.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(21) *Minnesota.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(22) *Mississippi.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(23) *Missouri.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.8 psi standard from June 1 through September 15 in Clay, Jackson, and Platte Counties, and a 7.0 psi standard in St. Louis, Franklin, Jefferson, and St. Charles Counties and the city of St. Louis.

(24) *Montana.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(25) *Nebraska.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(26) *Nevada.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.8 psi standard from June 1 through September 15 in Washoe County.

(27) *New Hampshire.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard in Hillsborough, Rockingham, Merrimack, and Strafford Counties.

(28) *New Jersey.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard.

(29) *New Mexico.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(30) *New York.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard in Bronx, Dutchess, Kings, Nassau, New York, Orange, Putnam, Queens, Richmond, Rockland, Suffolk, and Westchester Counties, and the portion of Essex County that consists of the portion of Whiteface Mountain above 4,500 feet in elevation.

(31) *North Carolina.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(32) *North Dakota.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(33) *Ohio.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(34) *Oklahoma.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(35) *Oregon.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.8 psi standard from June 1 through September 15 in Clackamas, Multnomah, and Washington Counties and the parts of Marion and Polk Counties that are part of the Salem Area Transportation Study.

(36) *Pennsylvania.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard in Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties.

(37) *Rhode Island.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard.

(38) *South Carolina.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(39) *South Dakota.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(40) *Tennessee.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.8 psi standard from June 1 through September 15 in Davidson, Rutherford, Shelby, Sumner, Williamson, and Wilson Counties.

(41) *Texas.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.8 psi standard from June 1 through September 15 in El Paso, Hardin, Jefferson, and Orange Counties, and a 7.0 psi standard in Brazoria, Chambers, Collin, Dallas, Denton, Fort Bend, Galveston, Harris, Liberty, Montgomery, Tarrant, and Waller Counties.

(42) *Utah.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.8 psi standard from June 1 through September 15 in Davis and Salt Lake Counties.

(43) *Vermont.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(44) *Virginia.* Ethanol flex fuel intended to be dispensed to flexible fuel vehicles in Virginia shall meet a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard in Arlington, Charles City, Chesterfield, Fairfax, Hanover, Henrico, James City, Loudoun, Prince William, Stafford, and York Counties and the cities of Alexandria, Chesapeake, Colonial Heights, Fairfax, Falls Church, Hampton, Hopewell, Manassas, Manassas Park, Newport News, Norfolk, Poquoson, Portsmouth, Richmond,

Suffolk, Virginia Beach, and Williamsburg.

(45) *Washington.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(46) *West Virginia.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(47) *Wisconsin.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard except that no person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 7.0 psi standard in Kenosha, Milwaukee, Ozaukee, Racine, Washington, and Waukesha Counties.

(48) *Wyoming.* No person may sell, offer for sale, dispense, supply, or offer for supply ethanol flex fuel that has an RVP that exceeds a 9.0 psi standard.

(b) *Determination of compliance.* Compliance with the standards listed in paragraph (a) of this section shall be determined by the use of the sampling and testing methodologies specified in § 80.1553(g) or (j).

(c) *Liability.* Liability for violations of paragraph (a) of this section shall be determined according to the provisions of § 80.1564. Where the terms refiner, importer, distributor, reseller, carrier, retailer, or wholesale purchaser-consumer are expressed in the singular in § 80.1564, these terms shall include the plural.

§§ 80.1532–80.1549 [Reserved]

■ 86. Reserved §§ 80.1532 through 80.1549 are added.

■ 87. Section 80.1550 is added to read as follows:

§ 80.1550 Registration requirements for ethanol flex fuel refiners, ethanol flex fuel importers, natural gasoline ethanol flex fuel blendstock refiners, and certified natural gasoline ethanol flex fuel blendstock importers.

The following registration requirements apply under this subpart:

(a) *Registration.* Registration is required for the following:

(1) Any ethanol flex fuel full-refiner or importer.

(2) Any ethanol flex fuel bulk blender-refiner.

(3) Any certified natural gasoline ethanol flex fuel blendstock refiner or importer.

(b) *Registration requirements.* (1) Registration shall be on forms and use procedures prescribed by the Administrator, and shall include all of the following information, as applicable, for each ethanol flex fuel full-refiner, ethanol flex fuel importer, ethanol flex fuel bulk blender-refiner, certified natural gasoline ethanol flex fuel blendstock refiner, and certified natural gasoline ethanol flex fuel blendstock importer:

(i) The name, business address, contact name, email address, and telephone number of the refiner or importer.

(ii) For each separate refinery or import facility, the facility name, physical location, contact name, email address, telephone number, and type of facility.

(iii) For each separate refinery or importer's operations in a single Petroleum Administration for Defense District (PADD)—

(A) Whether records are kept on-site or off-site of the refinery or import facility's registered address.

(B) If records are kept off-site, the primary off-site storage facility name, physical location, contact name, email address, and telephone number.

(iv) The type(s) of ethanol flex fuel or natural gasoline ethanol flex fuel blendstock that is produced, imported, or blended.

(v) Registrations for certified natural gasoline ethanol flex fuel blendstock refiners and importers must contain sufficient information to demonstrate that the refiner produces natural gasoline ethanol flex fuel blendstock solely from natural gas processing plants or a crude oil refineries.

(2) EPA will supply a company registration number to each refiner or importer and a facility registration number for each refinery or import facility that is identified. These registration numbers shall be used in all reports to the Administrator.

(3) Any refiner or importer shall submit updated registration information to the Administrator within thirty days of any occasion when the registration information previously supplied becomes incomplete or inaccurate.

■ 88. Section 80.1551 is added to read as follows:

§ 80.1551 Reporting requirements for ethanol flex fuel refiners and importers and certified natural gasoline ethanol flex fuel blendstock refiners and importers.

Beginning with the compliance date specified in § 80.1504(b) and continuing for each averaging period thereafter, any ethanol flex fuel full-refiner, ethanol flex fuel importer, ethanol flex fuel bulk blender-refiner, certified natural gasoline ethanol flex fuel blendstock refiner, or certified natural gasoline ethanol flex fuel blendstock importer, shall submit annual reports to EPA that contain the information required in this section, and any other information as EPA may require. Reporting shall be on forms and use procedures prescribed by the Administrator. Blender pump-refiners that comply with the requirements of § 80.1523 are exempt from the annual reporting requirements of this section.

(a) *Annual reports for ethanol flex fuel full-refiners and importers.* Any ethanol flex fuel full-refiner, for each of its refineries, and any ethanol flex fuel importer, for the ethanol flex fuel that it imports, shall submit a report for each calendar year period that includes all of the following information:

(1) The EPA-issued company registration number.

(2) The EPA-issued facility registration number.

(3) The total volume of ethanol flex fuel produced or imported, in gallons, reported to the nearest whole number.

(4) For each batch of ethanol flex fuel produced or imported during the calendar year, all of the following:

(i) The batch number assigned under § 80.1521(g).

(ii) The date the batch was produced.

(iii) The volume of the batch, in gallons, reported to the nearest whole number.

(iv) The volume percent ethanol content of the batch, reported to one decimal place.

(v) The sulfur content of the batch, reported to the nearest ppm, and the benzene content of the batch, reported to two decimal places, along with identification of the test methods used to determine the sulfur content and benzene content of the batch, as determined under § 80.1553(e) and (f), respectively.

(vi) For batches sold, offered for sale, dispensed, supplied, or offered for supply from May 1 through September 15, the RVP of the batch, reported to two decimal places, along with identification of the test method used to determine the RVP of the batch, as determined under § 80.1553(g).

(vii) The type and volume of each hydrocarbon and ethanol blendstock that was used to produce the ethanol flex fuel, as applicable (*i.e.,* conventional gasoline, reformulated gasoline, CBOB, RBOB, certified natural gasoline ethanol flex fuel blendstock, uncertified natural gasoline ethanol flex fuel blendstock, denatured fuel ethanol, and undenatured ethanol).

(5) The annual average sulfur level and annual average benzene level of the ethanol flex fuel produced or imported, reported to two decimal places.

(6) Certification that all batches of ethanol flex fuel produced or imported

were compliant with the requirements of §§ 80.1520 and 80.1521.

(b) *Annual reports for ethanol flex fuel bulk blender-refiners.* Any ethanol flex fuel bulk blender-refiner, for each of its refineries, shall submit a report for each calendar year period that includes all of the following information:

(1) The EPA importer, or refiner and refinery facility registration numbers.

(2) The total volume of ethanol flex fuel produced, in gallons, reported to the nearest whole number.

(3) For each batch of ethanol flex fuel blended during the calendar year, all of the following:

(i) The batch number assigned under § 80.1522(d).

(ii) The date the batch was produced.

(iii) The volume of the batch, in gallons, reported to the nearest whole number.

(iv) The ethanol content of the batch, reported to one decimal place.

(v) For batches sold, offered for sale, dispensed, supplied, or offered for supply from May 1 through September 15, the RVP of the batch, reported to two decimal places, and the method used to demonstrate compliance with the applicable RVP standard, as determined by either:

(A) The use of an EPA-approved RVP compliance tool under § 80.1553(j).

(B) A test method pursuant to the requirements of § 80.1553(g).

(vi) The type and volume of each hydrocarbon and ethanol blendstock that was used to produce the ethanol flex fuel, as applicable (*i.e.,* conventional gasoline, reformulated gasoline, CBOB, RBOB, certified natural gasoline ethanol flex fuel blendstock, denatured fuel ethanol, and undenatured ethanol).

(4) Certification that all batches of ethanol flex fuel blended were compliant with the requirements of §§ 80.1520 and 80.1522.

(c) *Annual reports for refiners and importers of certified natural gasoline ethanol flex fuel blendstock.* Any certified natural gasoline ethanol flex fuel blendstock refiner, for each of its refineries, and any certified natural gasoline ethanol flex fuel blendstock importer, for the certified natural gasoline ethanol flex fuel blendstock that it imports, shall submit a report for each calendar year averaging period that includes all of the following information:

(1) The EPA-issued company registration number.

(2) The EPA-issued facility registration number.

(3) The total volume of certified natural gasoline ethanol flex fuel blendstock produced or imported during the calendar year, in gallons, reported to the nearest whole number.

(4) For each batch of certified natural gasoline flex fuel blendstock produced or imported during the calendar year, all of the following:

(i) The batch number assigned under § 80.1524(g).

(ii) The date the batch was produced.

(iii) The volume of the batch, in gallons, reported to the nearest whole number.

(iv) The sulfur content of the batch, reported to the nearest ppm, and the benzene content of the batch, reported to two decimal places, along with identification of the test methods used to determine the sulfur content and benzene content of the batch, as determined under § 80.1553(e) and (f), respectively.

(v) The RVP of the batch, reported to two decimal places, along with identification of the test method used to determine the RVP of the batch, as determined under § 80.1553(g). Documentation from the certified natural gasoline ethanol flex fuel blendstock refiner may be used to satisfy the requirement of this paragraph. In lieu of using a procedure specified in § 80.1553(g), if the RVP of the batch is less than atmospheric pressure as evidenced by its storage/handling procedures, a natural gasoline ethanol flex fuel blendstock refiner or natural gasoline ethanol flex fuel blendstock importer may report an RVP value of 15.0 psi for the batch.

(vi) The T90 distillation point and final distillation point temperatures of the batch reported to nearest whole degree F, along with identification of the test method used, as determined under § 80.1553(h). Documentation from the supplier of the natural gasoline used to produce certified natural gasoline ethanol flex fuel blendstock may be used to satisfy the requirement of this paragraph.

(vii) For each imported batch of certified natural gasoline ethanol flex fuel blendstock, the source refinery's EPA registration number.

(5) Certification that all batches of certified natural gasoline ethanol flex fuel blendstock produced or imported were compliant with the requirements of § 80.1524.

(d) *Report submission.* Any annual report required under this section shall meet the following requirements:

(1) Be signed and certified as meeting all of the applicable requirements of this subpart by the owner or a responsible corporate officer of the refiner or importer.

(2) Be submitted to EPA no later than the March 31 each year for the prior calendar year.

(3) All values measured or calculated pursuant to the requirements of this subpart shall be in accordance with the rounding procedure specified in § 80.1503.

(e) *Attest reports.* Any attest engagement reports required under § 80.1569 shall be submitted to the Administrator by June 1 of each year for the prior calendar year.

■ 89. Section 80.1552 is added to read as follows:

§ 80.1552 Recordkeeping requirements.

Unless otherwise provided for in this section, the records required by this section shall be kept beginning on the compliance date specified in § 80.1504(b) and retained for a period of five years from the date of creation, and shall be delivered to the EPA Administrator or to the Administrator's authorized representative upon request.

(a) *Records that ethanol flex fuel full-refiners and importers must keep.* Any ethanol flex fuel full-refiner, for each of its ethanol flex fuel refineries, and any ethanol flex fuel importer, for the ethanol flex fuel that it imports, must keep records that include all of the following information:

(1) The product transfer document information required under § 80.1563.

(2) The date each batch was produced or imported.

(3) The batch volume.

(4) For each batch, all of the following information for any sampling and testing for sulfur content, benzene content, and RVP required under this subpart:

(i) The location, date, time, and storage tank or truck identification for each sample collected.

(ii) The name and title of the person who collected the sample and the person who performed the test.

(iii) The results of the test as originally printed by the testing apparatus, or where no printed result is produced, the results as originally recorded by the person who performed the test.

(iv) Any record that contains a test result for the sample that is not identical to the result recorded under paragraph (a)(4)(iii) of this section.

(v) The test methodology used.

(5) The batch number assigned under § 80.1521(g) and the appropriate designation under paragraph (a)(9) of this section.

(6) A copy of all registration records submitted to EPA under § 80.1550.

(7) A copy of all reports submitted to EPA under § 80.1551.

(8) Any calculations used to determine compliance with the applicable benzene content, sulfur content, and RVP standards of §§ 80.1520 and 80.1521.

(9) If appropriate, the designation of the batch as exempt ethanol flex fuel for national security purposes under § 80.1555, exempt ethanol flex fuel for research and development under § 80.1556, exempt ethanol flex fuel used in American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands under § 80.1557, California ethanol flex fuel that meets the requirements of § 80.1558, or for export outside the United States.

(10) Bills of lading, invoices, certificates of analysis, and other commercial documents relating to the blendstocks used to produce the batch.

(11) For each batch of uncertified natural gasoline ethanol flex fuel used during the calendar year to produce ethanol flex fuel:

(i) The RVP of the batch, along with identification of the test method used, as determined under § 80.1553(g).

(ii) The T90 distillation point and final distillation point temperatures, along with identification of the test method used, as determined under § 80.1553(h).

(iii) Documentation from the supplier of the natural gasoline used by the ethanol flex fuel full-refiner or importer as uncertified natural gasoline ethanol flex fuel blendstock that demonstrates the uncertified natural gasoline ethanol flex fuel blendstock was produced from a processing unit (*e.g.,* a distillation tower or desulfurization unit) at a natural gas processing plant or crude oil refinery.

(iv) Documentation from the supplier of the natural gasoline used by the ethanol flex fuel full-refiner or importer as uncertified natural gasoline ethanol flex fuel blendstock may be used to satisfy the requirements in paragraphs (a)(11)(i) and (a)(11)(ii) of this section.

(b) *Records that ethanol flex fuel bulk blender-refiners must keep.* Any ethanol flex fuel bulk blender-refiner, for each of its ethanol flex fuel bulk blender-refineries, must keep records that include all of the following information:

(1) *Product transfer documents.* (i) The product transfer document information required under § 80.1563 for the blendstocks used to produce ethanol flex fuel.

(ii) The product transfer document information required under § 80.1610 for any DFE used to producer ethanol flex fuel.

(iii) Any product transfer document information for gasoline used to produce ethanol flex fuel, as required under § 80.77, § 80.106, § 80.210, § 80.219, § 80.1563, and/or § 80.1651.

(2) The date each batch was produced.

(3) The batch volume.

(4) In cases where natural gasoline ethanol flex fuel blendstock is used to produce ethanol flex fuel, the test or modeling results on the RVP of each batch and the test methodology used.

(5) For each batch, documentation concerning the composition of the ethanol flex fuel, including:

(i) The volume or concentration of the ethanol blend component as described in § 80.1522(b)(1).

(ii) The volume or concentration of any gasoline, CBOB, or RBOB blending component(s), as described in § 80.1522(b)(2) and (b)(3).

(iii) The volume or concentration of any natural gasoline ethanol flex fuel blendstock as described in § 80.1522(b)(4).

(iv) The type and amount of any ethanol flex fuel additives as described in § 80.1522(b)(5).

(v) Bills of lading, invoices, certificates of analysis, and other commercial documents relating to the blendstocks used to produce the batch.

(6) The batch number assigned under § 80.1522(d) and the appropriate designation under paragraph (b)(10) of this section.

(7) A copy of all registration records submitted to EPA under § 80.1550.

(8) A copy of all reports submitted to EPA under § 80.1551.

(9) Records related to the participation in a survey program under § 80.1561 or § 80.1562, as applicable.

(10) If appropriate, the designation of the batch as exempt ethanol flex fuel for national security purposes under § 80.1555, exempt ethanol flex fuel for research and development under § 80.1556, exempt ethanol flex fuel used in American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands under § 80.1557, California ethanol flex fuel that meets the requirements of § 80.1558, or for export outside the United States.

(c) *Records that blender pump-refiners must keep.* Any blender pump-refiner, for each of its blender pump-refineries, shall keep records that include all of the following information:

(1) The product transfer document information required under § 80.1563 for the ethanol flex fuel used as a blendstock to produce ethanol flex fuel at a blender pump.

(2) Any product transfer document information for gasoline used to produce ethanol flex fuel, as required under § 80.77, § 80.106, § 80.210, § 80.219, § 80.1563, and/or § 80.1651.

(3) Records related to the participation in a survey program under § 80.1561 or § 80.1562, as applicable.

(4) Records related to any quality control program, including any calibration or certification required by a federal, state, or local government entity, conducted by the blender pump-refiner.

(5) Bills of lading, invoices, certificates of analysis, and other commercial documents relating to any parent blend used to produce ethanol flex fuel.

(d) *Records that natural gasoline ethanol flex fuel blendstock refiners and natural gasoline ethanol flex fuel blendstock importers must keep.* Any natural gasoline ethanol flex fuel blendstock refiner, for each of its natural gasoline ethanol flex fuel blendstock refineries, and any natural gasoline ethanol flex fuel blendstock importer, for the natural gasoline ethanol flex fuel blendstock that it imports, must keep records that include all of the following information:

(1) The product transfer document information required under § 80.1563.

(2) The date each batch was produced.

(3) The batch volume.

(4) The sulfur content, benzene content, and RVP of the batch, as determined pursuant to the requirements of § 80.1553, as applicable. For batches reporting an RVP value of 15.0 pursuant to § 80.1551(c)(4)(v), the storage/handling procedures demonstrating an RVP less than atmospheric pressure.

(5) All of the following information for any sampling and testing for sulfur content, benzene content, and RVP required under this subpart:

(i) The location, date, time, and storage tank or truck identification for each sample collected.

(ii) The name and title of the person who collected the sample and the person who performed the test.

(iii) The results of the test as originally printed by the testing apparatus, or where no printed result is produced, the results as originally recorded by the person who performed the test.

(iv) Any record that contains a test result for the sample that is not identical to the result recorded under paragraph (d)(5)(iii) of this section.

(v) The test methodology used.

(6) The batch number assigned under § 80.1524(g).

(7) Documentation from the supplier of the natural gasoline used to produce certified natural gasoline ethanol flex fuel blendstock that demonstrates the certified natural gasoline ethanol flex fuel blendstock was produced from a

processing unit (*e.g.,* a distillation tower or desulfurization unit) at a natural gas processing plant or crude oil refinery.

(8) A copy of all registration records submitted to EPA under § 80.1550.

(9) A copy of all reports submitted to EPA under § 80.1551.

(10) Bills of lading, invoices, certificates of analysis, and other commercial documents relating to the natural gasoline used to produce certified natural gasoline ethanol flex fuel blendstock.

(11) For each imported batch of certified ethanol flex fuel blendstock, the source refinery's EPA registration number.

(e) *Records that parties that take custody of ethanol flex fuel must keep.* All parties that take custody of ethanol flex fuel other than when ethanol flex fuel is sold or dispensed for use in flex-fuel vehicles or engines at a retail outlet or wholesale purchaser-consumer facility, must retain records of the product transfer document information under § 80.1563.

(f) *Records that parties who take custody of certified natural gasoline ethanol flex fuel blendstock must keep.* All parties that take custody of certified natural gasoline ethanol flex fuel blendstock—from the refiner or importer through to the ethanol flex fuel full-refiner or ethanol flex fuel bulk blender-refiner—must retain records of the product transfer document information required in § 80.1563.

(g) *Records that ethanol flex fuel additive manufacturers must keep.* Any ethanol flex fuel additive manufacturer, for the ethanol flex fuel additives that it produces or imports, must keep records that include all of the following information:

(1) The product transfer document information for each batch.

(2) The date each batch was produced or imported.

(3) The batch volume.

(4) The maximum recommended treatment rate.

(5) Records of the additive manufacturer's control practices that demonstrate that the additive will contribute no more than 3 ppm on a per-gallon basis to the sulfur content of ethanol flex fuel when used at the maximum recommended treatment rate.

(h) *Make records available to EPA.* On request by EPA, the records required in this section shall be provided to the Administrator's authorized representative. For records that are electronically generated or maintained, the equipment and software necessary to read the records shall be made available to EPA; or, if requested by EPA, electronic records shall be converted to paper documents which shall be provided to the Administrator's authorized representative.

■ 90. Section 80.1553 is added to read as follows:

§ 80.1553 Sampling and testing requirements for ethanol flex fuel refiners and importers and certified natural gasoline ethanol flex fuel blendstock refiners and importers.

The sampling methods and test methods specified in this section shall be used to collect and test samples of ethanol flex fuel produced by ethanol flex fuel full-refiners, ethanol flex fuel importers, and ethanol flex fuel bulk blender-refiners pursuant to the requirements of §§ 80.1520, 80.1521 and 80.1522, and certified natural gasoline ethanol flex fuel blendstock produced by certified natural gasoline ethanol flex fuel blendstock refiners and certified natural gasoline ethanol flex fuel blendstock importers pursuant to the requirements of § 80.1524, for purposes of determining compliance with the requirements of this subpart.

(a) *Manual sampling.* Manual sampling of tanks and pipelines shall be performed according to the applicable procedures specified in ASTM D4057.

(b) *Automatic sampling.* Automatic sampling of petroleum products in pipelines shall be performed according to the applicable procedures specified in ASTM D4177.

(c) *Sampling and sample handling for volatility measurement.* Samples to be analyzed for RVP shall be collected and handled according to the applicable procedures specified in ASTM D5842.

(d) *Sample compositing.* Composite samples shall be prepared using the applicable procedures specified in ASTM D5854.

(e) *Sulfur.* Sulfur content of ethanol flex fuel and certified natural gasoline ethanol flex fuel blendstock shall be determined by use of one of the following methods:

(1) ASTM D2622.

(2) ASTM D1266, ASTM D3120, ASTM D5453, ASTM D6920, ASTM D7220, or ASTM D7039, provided the test result is correlated with the method specified in paragraph (e)(1) of this section.

(f) *Benzene.* Benzene content of ethanol flex fuel and natural gasoline ethanol flex fuel blendstock shall be determined by use of one of the following methods:

(1) ASTM D5769.

(2) ASTM D5580, ASTM D3606, or ASTM D6730, provided the test result is correlated with the method specified in paragraph (f)(1) of this section.

(g) *Reid vapor pressure.* The RVP of ethanol flex fuel and natural gasoline ethanol flex fuel blendstock shall be determined by use of one of the following methods:

(1) ASTM D5191.

(2) ASTM D5482 or ASTM D6378, provided the test result is correlated with the method specified in paragraph (g)(1) of this section.

(h) *Distillation.* The distillation point at which ninety percent of the natural gasoline ethanol flex fuel blendstock has evaporated and the final boiling point shall be determined by use of one of the following methods:

(1) ASTM D86.

(2) [Reserved]

(i) *Oxygenate and ethanol content.* Oxygenate and ethanol content of ethanol flex fuel shall be determined by use of one of the following methods:

(1) ASTM D5599.

(2) ASTM D4815, provided the test result is correlated with the method specified in paragraph (i)(1) of this section.

(j) *Alternative requirements to RVP sampling and testing.* Ethanol flex fuel bulk blender-refiners may use the provisions in this paragraph (j)(1) of this section as an alternative to the RVP sampling and testing requirements in paragraph (g) of this section.

(1) *Alternative sampling and testing provisions.* (i) The RVP of each batch of ethanol flex fuel shall be determined by using the RVP equations specified in this paragraph.

(ii) The RVP of the CBOB, RBOB, E0, certified natural gasoline ethanol flex fuel blendstock, and/or ethanol denaturant hydrocarbon blend components used to produce the ethanol flex fuel shall be volume weighted to arrive at a RVP of the mixture of the hydrocarbon blend components. In cases where denatured fuel ethanol is used as a blending component, the denaturant concentration in the denatured fuel ethanol may be assumed to be 3 volume percent and the RVP of the denaturant to be 15.0 psi.

(iii) The volume weighted RVP of the mixture of the hydrocarbon blend components determined pursuant to the requirements of paragraph (j)(1)(ii) of this section shall be used in determining the RVP of the finished ethanol flex fuel blend using the RVP equations described in paragraph (j)(1)(iv) of this section.

(iv) RVP equations: RVP expressed in pounds per square inch (psi).

$$K_{\text{undenatured ethanol}} = 46.321\ (\text{vol\%}_{\text{undenatured ethanol}})^{-0.8422}$$

$$K_{\text{hydrocarbon}} = -7E{-}07(\text{vol\%}_{\text{undenatured ethanol}})^{3} + 0.0002\ (\text{vol\%}_{\text{undenatured ethanol}})^{2}$$

+ 0.0024 (vol% $_{\text{undenatured ethanol}}$) + 1

$RVP_{\text{EFF blend}} = K_{\text{hydrocarbon}}$ (vol% $_{\text{hydrocarbon}}$/100) $RVP_{\text{hydrocarbon}}$ + $K_{\text{undenatured ethanol}}$ (vol% $_{\text{undenatured ethanol}}$/100) 2.4

(2) [Reserved]

■ 91. Section 80.1554 is added to read as follows:

§ 80.1554 Sample retention requirements for ethanol flex fuel and certified natural gasoline ethanol flex fuel blendstock refiners and importers.

(a) Beginning on the date specified in § 80.1504(b), any ethanol flex fuel refiner, ethanol flex fuel importer, certified natural gasoline ethanol flex fuel blendstock refiner, or certified natural gasoline ethanol flex fuel blendstock importer shall:

(1) Retain a representative sample portion of each sample collected under § 80.1553, of at least 330 mL in volume.

(2) Retain such sample portions for the most recent 20 samples collected, or for each sample collected during the most recent 21 day period, whichever is greater, not to exceed 90 days for any given sample.

(3) Comply with the ethanol flex fuel or natural gasoline ethanol flex fuel blendstock sample handling procedures under § 80.1553(c) for each sample portion retained.

(4) Comply with any request by EPA to:

(i) Provide a retained sample portion to the Administrator's authorized representative.

(ii) Ship a retained sample portion to EPA, within two working days of the date of the request, by an overnight shipping service or comparable means, to the address and following procedures specified by EPA, and accompanied with the sulfur, benzene, RVP, and distillation test result for the sample determined pursuant to § 80.1553.

(b) [Reserved]

■ 92. Section 80.1555 is added to read as follows:

§ 80.1555 National security exemptions.

(a) The ethanol flex fuel standards of § 80.1520 do not apply to ethanol flex fuel that is produced, imported, sold, offered for sale, dispensed, supplied, offered for supply, stored, or transported for use in any of the following:

(1) Tactical military vehicles, engines, or equipment having an EPA national security exemption from the gasoline emission standards under 40 CFR part 86.

(2) Tactical military vehicles, engines, or equipment that are not subject to a national security exemption from vehicle or engine emissions standards as described in paragraph (a)(1) of this section but, for national security purposes (for purposes of readiness for deployment overseas), need to be fueled on the same ethanol flex fuel as the vehicles, engines, or equipment for which EPA has granted such a national security exemption.

(b) The exempt fuel must meet all the following conditions:

(1) It must be accompanied by product transfer documents as required under § 80.1563.

(2) It must be segregated from non-exempt ethanol flex fuel at all points in the distribution system.

(3) It must be dispensed from a fuel pump stand, fueling truck, or tank that is labeled with the appropriate designation of the fuel.

(4) It may not be used in any vehicles, engines, or equipment other than those referred to in paragraph (a) of this section.

(c) Any national security exemptions approved under subparts H and O of this part will remain in place under this subpart.

■ 93. Section 80.1556 is added to read as follows:

§ 80.1556 Exemptions for ethanol flex fuel used for research, development, or testing purposes.

(a) *Written request for a research and development exemption.* Any person may receive an exemption from the provisions of this subpart for ethanol flex fuel used for research, development, or testing (''R&D'') purposes by submitting the information listed in paragraph (c) of this section to EPA. Applications for R&D exemptions must be submitted to the address in paragraph (h) of this section.

(b) *Criteria for a research and development exemption.* For a R&D exemption to be granted, the person requesting an exemption must do all the following:

(1) Demonstrate a purpose that constitutes an appropriate basis for exemption.

(2) Demonstrate that an exemption is necessary.

(3) Design a R&D program that is reasonable in scope.

(4) Have a degree of control consistent with the purpose of the program and EPA's monitoring requirements.

(c) *Information required to be submitted.* To demonstrate each of the elements in paragraph (b) of this section, the person requesting an exemption must include all the following information:

(1) A concise statement of the purpose of the program demonstrating that the program has an appropriate R&D purpose.

(2) An explanation of why the stated purpose of the program cannot be achieved in a practicable manner without performing one or more of the prohibited acts under this subpart.

(3) A demonstration of the reasonableness of the scope of the program, including all of the following:

(i) An estimate of the program's beginning and ending dates.

(ii) An estimate of the maximum number of vehicles or engines involved in the program and the number of miles and engine hours that will be accumulated on each.

(iii) The sulfur content, benzene content, and RVP of the ethanol flex fuel expected to be used in the program.

(iv) The quantity of ethanol flex fuel that does not comply with the requirements of § 80.1520.

(v) The manner in which the information on vehicles and engines used in the program will be recorded and made available to the Administrator upon request.

(4) With regard to control, a demonstration that the program affords EPA a monitoring capability, including all the following:

(i) A description of the technical and operational aspects of the program.

(ii) The site(s) of the program (including facility name, street address, city, county, state, and zip code).

(iii) The manner in which information on the fuel used in the program (including quantity, fuel properties, name, address, telephone number and contact person of the supplier, and the date received from the supplier), will be recorded and made available to the Administrator upon request.

(iv) The manner in which the party will ensure that the R&D fuel will be segregated from ethanol flex fuel meeting the standards of this subpart and how fuel pumps will be labeled to ensure proper use of the R&D fuel.

(v) The name, address, telephone number, and title of the person(s) in the organization requesting an exemption from whom further information on the application may be obtained.

(vi) The name, address, telephone number, and title of the person(s) in the organization requesting an exemption who is responsible for recording and making available the information specified in this paragraph (c), and the location where such information will be maintained.

(d) *Additional requirements.* (1) The product transfer documents associated with R&D ethanol flex fuel must comply with the requirements of § 80.1563.

(2) The R&D ethanol flex fuel must be designated by the refiner or supplier, as

applicable, as exempt R&D ethanol flex fuel.

(3) The R&D ethanol flex fuel must be kept segregated from non-exempt ethanol flex fuel at all points in the distribution system.

(4) The R&D ethanol flex fuel must not be sold, distributed, offered for sale or distribution, dispensed, supplied, offered for supply, transported to or from, or stored by a fuel retail outlet, or by a wholesale purchaser-consumer facility, unless the wholesale purchaser-consumer facility is associated with the R&D program that uses the ethanol flex fuel.

(5) At the completion of the program, any emission control systems or elements of design which are damaged or rendered inoperative shall be replaced on vehicles remaining in service, or the responsible person will be liable for a violation of the Clean Air Act section 203(a)(3) (42 U.S.C. 7522(a)(3)) unless sufficient evidence is supplied that the emission controls or elements of design were not damaged.

(e) *Memorandum of exemption.* The Administrator will grant an R&D exemption upon a demonstration that the requirements of this section have been met. The R&D exemption will be granted in the form of a memorandum of exemption signed by the applicant and the Administrator (or delegate), which may include such terms and conditions as the Administrator determines necessary to monitor the exemption and to carry out the purposes of this section, including restoration of emission control systems.

(1) The volume of fuel subject to the approval shall not exceed the estimated amount under paragraph (c)(3) of this section, unless EPA grants a greater amount in writing.

(2) Any exemption granted under this section will expire at the completion of the test program or three years from the date of approval, whichever occurs first, and may only be extended upon re-application consistent will all requirements of this section.

(3) EPA may elect at any time to review the information contained in the request, and where appropriate may notify the responsible person of disapproval of the exemption.

(4) In granting an exemption the Administrator may include terms and conditions, including replacement of emission control devices or elements of design, which the Administrator determines are necessary for monitoring the exemption and for assuring that the purposes of this subpart are met.

(5) Any violation of a term or condition of the exemption, or of any requirement of this section, will cause the exemption to be void ab initio.

(6) If any information required under paragraph (c) of this section should change after approval of the exemption, the responsible person must notify EPA in writing immediately. Failure to do so may result in disapproval of the exemption or may make it void ab initio, and may make the party liable for a violation of this subpart.

(f) *Effects of exemption.* Ethanol flex fuel that is subject to a R&D exemption under this section is exempt from other provisions of this subpart provided that the fuel is used in a manner that complies with the purpose of the program under paragraph (c) of this section and all other requirements of this section.

(g) *Notification of completion.* The party shall notify EPA in writing within 30 days after completion of the R&D program.

(h) *Submission.* Requests for R&D exemptions shall be sent to the attention of: ''Ethanol Flex Fuel Program (R&D Exemption Request)'' to the address in § 80.10(a).

■ 94. Section 80.1557 is added to read as follows:

§ 80.1557 Requirements for ethanol flex fuel for use in American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.

The ethanol flex fuel standards of this subpart do not apply to ethanol flex fuel that is produced, imported, sold, offered for sale, dispensed, supplied, offered for supply, stored, or transported for use in the Territories of Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands, provided that such ethanol flex fuel meets all the following requirements:

(a) The ethanol flex fuel is designated by the ethanol flex fuel refiner or ethanol flex fuel importer as ethanol flex fuel only for use in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands.

(b) The ethanol flex fuel is used only in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands.

(c) The ethanol flex fuel is accompanied by documentation that complies with the product transfer document requirements of § 80.1563.

(d) The ethanol flex fuel is segregated from non-exempt ethanol flex fuel at all points in the distribution system from the point the fuel is designated as ethanol flex fuel only for use in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands, while the fuel is in the United States but outside these Territories.

■ 95. Section 80.1558 is added to read as follows:

§ 80.1558 California ethanol flex fuel requirements.

(a) *California ethanol flex fuel exemption.* California ethanol flex fuel that complies with all the requirements of this section is exempt from all other provisions of this subpart.

(b) *Requirements for California ethanol flex fuel.* (1) Each batch of California ethanol flex fuel must be designated as such by its refiner or importer.

(2) Designated California ethanol flex fuel must be kept segregated from ethanol flex fuel that is not California ethanol flex fuel at all points in the distribution system.

(3) Designated California ethanol flex fuel must ultimately be dispensed into flex-fuel vehicles and engines in the State of California for their use.

(4) For California ethanol flex fuel produced outside the State of California, the transferors and transferees must meet the product transfer document requirements of paragraph (b)(5) of this section.

(5)(i) Any refiner that operates a refinery located outside the State of California at which California ethanol flex fuel is produced must provide to any person to whom custody or title of such gasoline has transferred, and each transferee must provide to any subsequent transferee, documents that include all the following information:

(A) The name and address of the transferor.

(B) The name and address of the transferee.

(C) The volume of ethanol flex fuel which is being transferred.

(D) The location of the ethanol flex fuel at the time of the transfer.

(E) The date and time of the transfer.

(F) The identification of the ethanol flex fuel as California ethanol flex fuel.

(ii) Each refiner and transferee of California ethanol flex fuel must maintain copies of the product transfer documents required to be provided by paragraph (b)(5)(i) of this section for a period of five years from the date of creation and shall deliver such documents to the Administrator or to the Administrator's authorized representative upon request.

(6) Ethanol flex fuel that is ultimately used or dispensed in any part of the United States outside of the State of California must comply with the standards of § 80.1520 and any associated applicable requirements, regardless of any designation as California ethanol flex fuel.

§§ 80.1559–80.1560 [Reserved]

■ 96. Reserved §§ 80.1559 and 80.1560 are added.

■ 97. Newly redesignated § 80.1561 is amended by revising the section heading and paragraphs (b)(3)(ii), (b)(3)(iii) introductory text, (b)(3)(v), (c)(4), (d)(3), and (e) introductory text to read as follows:

§ 80.1561 Survey requirements related to E15.

* * * * *

(b) * * *

(3) * * *

(ii)(A) Obtain samples of gasoline offered for sale at gasoline retail outlets in accordance with the survey program plan approved under this paragraph (b), or immediately notify EPA of any refusal of retail outlets to allow samples to be taken.

(B) Samples of E15 collected from blender pump-refineries shall be collected using a method specified in *NIST Handbook 1XX* (incorporated by reference, see § 80.1580).

(iii) Test, or arrange to be tested, the samples required under paragraph (b)(3)(ii) of this section for RVP and oxygenate content as follows:

* * * * *

(v) Confirm that each fuel dispenser sampled is labeled as required in § 80.1502 by confirming that:

(A) The label meets the appearance and content requirements of § 80.1502.

(B) The label is located on the fuel dispenser according to the requirements in § 80.1502.

* * * * *

(c) * * *

(4) The survey program plan must be sent to the attention of ''E15 Survey Program Plan'' to the address in § 80.10(a).

* * * * *

(d) * * *

(3) For the first year in which a survey program will be conducted, no later than 15 days preceding the start of the survey EPA must receive a copy of the contract with the independent surveyor and 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; if the money has been placed into an escrow account, a copy of the escrow agreement must be sent to the official designated in paragraph (c)(4) of this section.

* * * * *

(e) *Consequences of failure to fulfill requirements.* A failure to fulfill or cause to be fulfilled any of the requirements of this section is a prohibited act under Clean Air Act section 211(c) and § 80.1564.

* * * * *

■ 98. Section 80.1562 is added to read as follows:

§ 80.1562 Ethanol flex fuel survey requirements.

(a) *General blender pump survey requirements*—(1) *Survey program participation.* Any ethanol flex fuel bulk blender-refiner or blender pump-refiner who manufactures, introduces into commerce, sells, or offers for sale ethanol flex fuel produced at an ethanol flex fuel bulk blender-refinery or blender pump must have an independent survey association conduct a statistically valid program of compliance surveys pursuant to a survey program plan that has been approved by EPA, in accordance with the requirements of paragraphs (a)(2) through (a)(5) of this section.

(2) *Survey program requirements.* The survey program must be:

(i) Planned and conducted by a survey association that is independent of the ethanol flex fuel bulk blender-refiner and blender pump-refiners that arrange to have the survey conducted. In order to be considered independent, all of the following conditions must be met:

(A) Representatives of the survey association shall not be an employee of any ethanol flex fuel bulk blender-refinery or blender pump-refiner.

(B) The survey association shall be free from any obligation to or interest in any ethanol flex fuel bulk blender-refinery or blender pump-refiner.

(C) The ethanol flex fuel bulk blender-refinery and blender pump-refiners that arrange to have the survey conducted shall be free from any obligation to or interest in the survey association.

(ii) Conducted separately at all ethanol flex fuel retail stations and at a subset of blender pump-refineries.

(iii) Represent all ethanol flex fuel retail stations and blender pump-refineries that dispense ethanol flex fuel nationwide.

(3) *Independent survey association requirements.* The independent survey association conducting the survey program described in paragraph (a)(1) of this section shall:

(i) Submit to EPA for approval each calendar year a proposed survey program plan in accordance with the requirements of paragraph (a)(4) of this section.

(ii)(A) Obtain samples representative of the ethanol flex fuel offered for sale separately from all ethanol flex fuel stations and the subset of blender pump-refineries in accordance with the survey program plan approved by EPA, or immediately notify EPA of any refusal of blender pump-refineries or ethanol flex fuel retail stations that operate blender pumps to allow samples to be taken.

(B) Samples of ethanol flex fuels collected from blender pump-refineries shall be collected using a method specified in *NIST Handbook 158* (incorporated by reference, see § 80.1580).

(iii) Test, or arrange to be tested, the samples required under paragraph (a)(3)(ii) of this section for oxygenate content, sulfur content, benzene content, and RVP (from June 1 through September 15), as follows:

(A) Samples collected shall be shipped the same day the samples are collected via ground service to the laboratory and analyzed for oxygenate content, sulfur content, benzene content, and RVP. Such analysis shall be completed within 10 days after receipt of the sample in the laboratory.

(B) Any laboratory to be used by the independent survey association for oxygenate content, sulfur content, benzene content, or RVP testing shall be approved by EPA and its test method for determining oxygenate content, sulfur content, benzene content, and RVP shall be an appropriate method as described in § 80.1553(e) through (i).

(iv) In the case of any test that yields a result that a sample potentially exceeds the 95 ppm sulfur standard of § 80.1520(b)(1)(ii)(B) or applicable RVP standard of § 80.1520(c), the independent survey association shall, within 24 hours after the laboratory has completed analysis of the sample, send notification of the test result as follows:

(A) In the case of a sample collected at a blender pump-refinery at which the brand name of a refiner or importer is displayed, to the ethanol flex fuel refiner or ethanol flex fuel importer, and EPA. This initial notification to the ethanol flex fuel refiner or ethanol flex fuel importer shall include specific information concerning the name and address of the blender pump-refinery or ethanol flex fuel retail station, contact information, the brand, and the sulfur content and/or RVP of the sample.

(B) In the case of a sample collected at any other blender pump-refineries or ethanol flex fuel retail stations, to the ethanol flex fuel bulk blender-refiner or blender pump-refiner and EPA, and such notice shall contain the same information as in paragraph (a)(3)(iv)(A) of this section.

(C) The independent survey association shall provide notice to the identified contact person or persons for each party in writing (which includes email or facsimile) and, if requested by the identified contact person, by telephone.

(v) Provide to EPA quarterly and annual summary survey reports which include the information specified in paragraph (a)(5) of this section.

(vi) Maintain all records relating to the surveys conducted under this paragraph (a) for a period of at least five (5) years.

(vii) Permit any representative of EPA to monitor at any time the conducting of the surveys, including sample collection, transportation, storage, and analysis.

(4) *Survey Plan Design Requirements.* The proposed survey program plan required under paragraph (a)(3)(i) of this section shall, at a minimum, include the following:

(i) *Number of Surveys.* The survey program plan shall include four surveys each calendar year, which shall occur during the following time periods:

(A) One survey during the period of January 1 through March 31.

(B) One survey during the period of April 1 through June 30.

(C) One survey during the period of July 1 through September 30.

(D) One survey during the period of October 1 through December 31.

(ii) *No advance notice of surveys.* The survey plan shall include procedures to keep the identification of the sampling areas that are included in any survey plan confidential from any regulated party prior to the beginning of a survey in an area. However, this information shall not be kept confidential from EPA.

(iii) *Blender pump-refinery and ethanol flex fuel retail station selection.* (A) The blender pump-refineries and ethanol flex fuel retail stations to be sampled in a sampling area shall be selected from among all blender pump-refineries and ethanol flex fuel retail stations in the sampling area that sell ethanol flex fuel, with the probability of selection proportionate to the volume of ethanol flex fuel sold at the blender pump-refineries or ethanol flex fuel retail station. The sample should also include blender pump-refineries and ethanol flex fuel retail stations with different brand names as well as those blender pump-refineries and ethanol flex fuel retail stations that are unbranded.

(B) In the case of any ethanol flex fuel blender pump-refinery or ethanol flex fuel retail station from which a sample of ethanol flex fuel was collected during a survey and determined to have a dispenser containing fuel whose sulfur content does not comply with the 95 ppm sulfur standard in § 80.1520(b)(1)(ii)(B) or whose RVP does not comply with the applicable RVP standard in § 80.1520(c), that blender pump-refinery or ethanol flex fuel retail station shall be included in the subsequent survey.

(C) At least one sample of a product dispensed as ethanol flex fuel shall be collected at each blender pump-refinery and ethanol flex fuel retail station, and separate samples must be taken that represent the gasoline or ethanol flex fuel contained in each storage tank, unless collection of separate samples is not practicable.

(iv) *Number of samples.* (A) The number of stations to be sampled shall be independently calculated for the total number of ethanol flex fuel retail stations and the total number of blender pump-refineries.

(B) If the number of blender pump-refineries from participating blender pump-refiners or ethanol flex fuel retail stations is less than 500, the minimum number of samples to be included in the survey plan for each calendar year shall be sufficient to ensure that each blender pump-refinery or ethanol flex fuel retail station is sampled at least once during the calendar year.

(C) If the number of blender pump-refineries from participating blender pump-refiners or ethanol flex fuel retail stations is 500 or greater, the minimum number of samples to be included in the survey plan for each calendar year shall be calculated as follows:

$$n = \left\{ \frac{\left[\left(Z_{\alpha} + Z_{\beta}\right)\right]^2}{\left(4 \times \left[\arcsin\left(\sqrt{\varphi_1}\right) - \arcsin\left(\sqrt{\varphi_0}\right)\right]^2\right)} \right\} \times F_a \times F_b \times Su_n$$

Where:

n = Minimum number of samples in a year-long survey series. However, in no case shall n be smaller than 500.

Z_{α} = Upper percentile point from the normal distribution to achieve a one-tailed 95% confidence level (5% α-level). Thus, Z_{α} equals 1.645.

Z_{β} = Upper percentile point to achieve 95% power. Thus, Z_{β} equals 1.645.

ϕ_1 = The maximum proportion of non-compliant stations for a region to be deemed compliant. In this test, the parameter needs to be 5% or greater, *i.e.,* 5% or more of the stations, within a stratum such that the region is considered non-compliant. For this survey, ϕ_1 will be 5%.

ϕ_0 = The underlying proportion of non-compliant stations in a sample. For the first survey plan, ϕ_0 will be 2.3%. For subsequent survey plans, ϕ_0 will be the average of the proportion of stations found to be non-compliant over the previous four surveys.

F_a = Adjustment factor for the number of extra samples required to compensate for collected samples that cannot be included in the survey, based on the number of additional samples required during the previous four surveys. However, in no case shall the value of F_a be smaller than 1.1.

F_b = Adjustment factor for the number of samples required to resample each blender pump-refinery with test results exceeding the sulfur content or RVP standard pursuant to § 80.1520, based on the rate of resampling required during the previous four surveys. However, in no case shall the value of F_b be smaller than 1.1.

Su_n = Number of surveys per year. For purposes of this survey program, Su_n equals 4.

(D) The number of samples determined pursuant to paragraphs (a)(4)(iv)(B) and (a)(4)(iv)(C) of this section, after being incremented as necessary to allocate whole numbers of samples to each cluster, shall be distributed approximately equally for the four surveys conducted during the calendar year.

(5) *Summary survey reports.* The quarterly and annual summary survey reports required under paragraph (a)(3)(v) of this section shall include the following information:

(i) An identification of the parties that are participating in the survey.

(ii) The identification of each sampling area included in a survey and the dates that the samples were collected in that area.

(iii) For each retail blender pump-refinery and ethanol flex fuel retail station sampled:

(A) The identification of the blender pump-refinery or ethanol flex fuel retail station.

(B) The refiner or importer brand name displayed, if any.

(C) The fuel dispenser labeling (*e.g.,* ''E20'').

(D) The sample test result for oxygenate content, sulfur content, benzene content, and RVP result, if any.

(E) The test method used to determine oxygenate content as described in § 80.1553(i).

(F) The test method used to determine sulfur content as described in § 80.1553(e).

(G) The test method used to determine benzene content as described in § 80.1553(f).

(H) The test method used to determine RVP as described in § 80.1553(g).

(iv) Ethanol level, sulfur content, benzene content, and RVP summary statistics by brand and unbranded for each sampling area and survey series. These summary statistics shall:

(A) Include the number of samples and the average, median, and range of: ethanol content, expressed in volume percent; sulfur content, expressed in parts per million; benzene content, expressed in volume percent; and RVP, expressed in pounds per square inch.

(B) [Reserved]

(v) The quarterly reports required under paragraph (a)(3)(v) of this section are due 60 days following the end of each survey period as described in paragraph (a)(4)(i) of this section. The annual reports required under paragraph (a)(3)(v) of this section are due 60 days following the end of the calendar year.

(vi) The reports required under this paragraph (a)(3)(v) shall be submitted to EPA in an electronic spreadsheet.

(b) *Procedures for obtaining approval of survey plan and providing required notices.* (1) A survey program plan that complies with the requirements of paragraph (a) of this section must be submitted to EPA no later than November 15 of the year preceding the calendar year in which the survey will be conducted.

(2) The survey program plan must be signed by a responsible officer of the independent surveyor conducting the survey program.

(3) The survey program plan must be sent to the attention of ''Ethanol Flex Fuel Survey Requirements'' to the address in § 80.10(a).

(4) EPA will send a letter to the party submitting the survey program plan that indicates whether EPA approves or disapproves the survey plan.

(5) The approving official for a survey plan under this section is the Director of the Compliance Division, Office of Transportation and Air Quality.

(6) Any notifications or reports required to be submitted to EPA under this section must be directed to the official designated in paragraph (b)(5) of this section.

(c) *Independent surveyor contract.* (1) No later than December 15 of the year preceding the year in which the survey 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 survey plan.

(2) No later than December 15 of the year preceding the year in which the survey will be conducted, EPA must receive a copy of the contract with the independent surveyor and 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; if placed into an escrow account, a copy of the escrow agreement must be sent to the official designated in paragraph (b)(5) of this section.

(d) *Consequences of failure to fulfill survey requirements.* No person shall fail to fulfill or cause to be fulfilled any of the requirements of this section and is a prohibited act under Clean Air Act section 211(c) and § 80.1564.

(1) EPA may revoke its approval of a survey plan under this section for cause, including, but not limited to, an EPA determination that the approved survey plan has proved to be inadequate in practice.

(2) EPA may void *ab initio* its approval of a survey plan if EPA's approval was based on false information, misleading information, or incomplete information, or if there was a failure to fulfill, or cause to be fulfilled, any of the requirements of the survey plan.

99. Newly redesignated § 80.1563 is amended by:

a. Revising the section heading;

b. Revising paragraphs (a)(1)(vi)(A) and (b)(1)(vi)(E); and

c. Redesignating paragraphs (c) and (d) as paragraphs (f) and (g) and adding new paragraphs (c) and (d) and paragraph (e).

The revisions and additions read as follows:

§ 80.1563 Product transfer document requirements for ethanol flex fuel, certified natural gasoline ethanol flex fuel blendstock, gasolines, and conventional blendstocks for oxygenate blending subject to this subpart.

(a) * * *

(1) * * *

(vi) * * *

(A) The maximum RVP, as determined by an applicable method permitted under § 80.46, § 80.47, § 80.1553(g), or § 80.1553(j), stated in the following format: ''The RVP of this gasoline does not exceed [fill in appropriate value].''; and

* * * * *

(b) * * *

(1) * * *

(vi) * * *

(E) For all ethanol flex fuels, the following statement: ''Ethanol Flex Fuel—Contains XX% ethanol.'' The term XX refers to the volume percent of ethanol present in the ethanol flex fuel.

* * * * *

(c) *Product transfer documentation for ethanol flex fuel.* (1) On each occasion when any person transfers custody or title of ethanol flex fuel other than when ethanol flex fuel is sold or dispensed for use in flex-fuel vehicles or engines at a retail outlet or wholesale purchaser-consumer facility, the transferor shall provide to the transferee product transfer documents that include all of the following information, as applicable:

(i) The name and address of the transferor.

(ii) The name and address of the transferee.

(iii) The volume of ethanol flex fuel being transferred.

(iv) The location of the ethanol flex fuel at the time of the transfer.

(v) The date of the transfer.

(vi) The concentration of ethanol pursuant to paragraph (b)(1)(vi)(E) of this section.

(vii) The type and volume of each hydrocarbon feedstock expressed in volume percent to the nearest whole number that was used to produce the ethanol flex fuel (*i.e.,* conventional gasoline, reformulated gasoline, CBOB, RBOB, uncertified natural gasoline ethanol flex fuel blendstock, certified natural gasoline ethanol flex fuel blendstock).

(viii) A statement that the ethanol flex fuel meets the applicable RVP standard.

(ix) A statement that the concentration of natural gasoline ethanol flex fuel blendstock blended in to produce ethanol flex fuel is less than or equal to 30 volume percent.

(2) [Reserved]

(d) *Product transfer documentation for certified natural gasoline ethanol flex fuel blendstock.* (1) On each occasion when any party transfers custody or title of certified natural gasoline ethanol flex fuel blendstock, the transferor shall provide to the transferee product transfer documents that include all of the following information, as applicable:

(i) The name and address of the transferor.

(ii) The name and address of the transferee.

(iii) The volume of certified natural gasoline ethanol flex fuel blendstock being transferred.

(iv) The location of the certified natural gasoline ethanol flex fuel blendstock at the time of the transfer.

(v) The date of the transfer.

(vi) The maximum RVP, as determined by an applicable method permitted under § 80.1553(g), or 15.0 psi as described § 80.1551(c)(4)(v).

(vii) Statement on the product transfer document as follows:

(A) For certified natural gasoline ethanol flex fuel blendstock that meet the requirements of § 80.1524, ''Certified natural gasoline EFF blendstock—Suitable for use to manufacture ethanol flex fuels meeting EPA standards. Cannot be used as gasoline, CBOB, or RBOB.''

(B) [Reserved]

(2) [Reserved]

(e) Alternative product transfer document language to that specified in paragraphs (a) through (d) of this section may be used as approved by EPA.

* * * * *

■ 100. Newly redesignated § 80.1564 is amended by:

■ a. Revising the section heading;

■ b. Revising paragraphs (a)(2) and (3);

■ c. Adding paragraph (a)(4);

■ d. Revising paragraphs (b), (c), (d), and (e)(1);

■ e. Redesignating paragraphs (h) and (i) as paragraphs (y) and (z);

■ f. Adding new paragraphs (h) and (i) and paragraphs (j) through (x); and

■ g. Revising newly redesignated paragraph (z).

The revisions and additions read as follows:

§ 80.1564 Prohibited activities.

(a) * * *

(2) Manufacture or introduce into commerce E15 in any calendar year for use in an area prior to commencement of a survey approved under 80.1561 for that area.

(3) Sell, introduce, cause, or permit the sale or introduction of gasoline containing greater than 15 volume percent ethanol (*i.e.,* greater than E15) into any model year 2001 or newer light- or medium-duty gasoline motor vehicle.

(4) Be prohibited from manufacturing, selling, introducing, causing, or allowing the sale or introduction of gasoline containing greater than 15 volume percent ethanol into any flex-fuel vehicle or flex-fuel engine, notwithstanding paragraphs (a)(1) through (3) of this section.

(b) Sell, offer for sale, dispense, or otherwise make available at a retail or wholesale purchaser-consumer facility E15 that is not correctly labeled in accordance with § 80.1502.

(c) Fail to fully or timely implement, or cause a failure to fully or timely implement, an approved survey required under § 80.1561 or § 80.1562.

(d) Fail to generate, use, transfer, and maintain product transfer documents that accurately reflect the type of product, ethanol content, maximum RVP, and other information required under § 80.1563.

(e) * * *

(1) Improperly blend, or cause the improper blending of, ethanol into conventional blendstock for oxygenate blending, gasoline, or gasoline already containing ethanol, in a manner inconsistent with the information on the product transfer document under § 80.1563(a)(1)(vi) or (b)(1)(vi).

* * * * *

(h) Produce, import, sell, offer for sale, dispense, supply, offer for supply, store, or transport ethanol flex fuel or certified natural gasoline ethanol flex fuel blendstock that does not comply with the applicable sulfur standards under § 80.1520(b)(1) or § 80.1524(b)(1).

(i) Cause ethanol flex fuel or certified natural gasoline ethanol flex fuel blendstock to be in the distribution system that does not comply with the applicable sulfur per-gallon cap standard under § 80.1520(b)(1)(ii) or § 80.1524(b)(1).

(j) Produce, import, sell, offer for sale, dispense, supply, offer for supply, store, or transport ethanol flex fuel or certified natural gasoline ethanol flex fuel blendstock that does not comply with the applicable benzene standards under § 80.1520(b)(2) or § 80.1524(c)(1).

(k) Cause certified natural gasoline ethanol flex fuel blendstock to be in the distribution system that does not comply with the applicable benzene per-gallon cap standard under § 80.1524(c)(1).

(l) Produce, import, sell, offer for sale, dispense, supply, offer for supply, store, or transport ethanol flex fuel or natural gasoline ethanol flex fuel blendstock that does not comply with the applicable carbon, hydrogen, oxygen, nitrogen, and sulfur elemental composition standard under § 80.1520(b)(3), § 80.1521(b)(5)(iii), or § 80.1524(f) without a waiver.

(m) Produce, import, sell, offer for sale, dispense, supply, offer for supply, store, or transport ethanol flex fuel or natural gasoline ethanol flex fuel blendstock that does not comply with the applicable RVP standard under § 80.1520(c), § 80.1521(b)(5)(i), or § 80.1524(d)(1).

(n) Cause ethanol flex fuel or natural gasoline ethanol flex fuel blendstock to be in the distribution system that does not comply with the applicable RVP standard under § 80.1520(c), § 80.1521(b)(5)(i), or § 80.1524(d)(1).

(o) Produce, import, sell, offer for sale, dispense, supply, offer for supply, store, or transport natural gasoline ethanol flex fuel blendstock that does not comply with the T90 distillation point or final distillation point standards under § 80.1521(b)(5)(ii) or § 80.1524(e)(1).

(p) Cause natural gasoline ethanol flex fuel blendstock to be in the distribution system that does not comply with the T90 distillation point or final distillation point standards under § 80.1521(b)(5)(iii) or § 80.1524(e)(1).

(q) Produce ethanol flex fuel at an ethanol flex fuel full-refinery pursuant to § 80.1521 with blendstocks that do not meet the certified natural gasoline ethanol flex fuel blendstock requirements in § 80.1524, the uncertified natural gasoline ethanol flex fuel blendstock requirements in § 80.1521(b)(5), the denatured fuel ethanol requirements in § 80.1610, the undenatured ethanol requirements in § 80.1521(b)(1)(ii), or the applicable gasoline, RBOB, and CBOB requirements in this part.

(r) Produce ethanol flex fuel at an ethanol flex fuel bulk blender-refinery pursuant to § 80.1522 with blendstocks that do not meet the certified natural gasoline ethanol flex fuel blendstock requirements in § 80.1524, the denatured fuel ethanol requirements in § 80.1610, the undenatured ethanol requirements in § 80.1522(b)(1)(ii), or the applicable gasoline, RBOB, and CBOB requirements in this part.

(s) Produce ethanol flex fuel at a blender pump-refinery pursuant to § 80.1523 with blendstocks other than ethanol flex fuel that meets the requirements of § 80.1520 or gasoline.

(t) Introduce an additive into ethanol flex fuel that contributes more than 3 ppm to the sulfur content of the finished ethanol flex fuel unless acting in the capacity of an ethanol flex fuel full-refiner or ethanol flex fuel importer under § 80.1521.

(u) Cause or contribute to the introduction into commerce of an additive intended to be used in ethanol flex fuel at less than 1 volume percent that does not comply with the requirements of § 80.1525.

(v) Sell, introduce, cause, or permit the sale or introduction of a gasoline-ethanol blended fuel containing greater than 83 volume percent ethanol into a flexible fuel vehicle certified under 40 CFR part 86 or flexible fuel engine

certified under 40 CFR part 1054 after the date specified in § 80.1504(b)(2).

(w) Commingle separate batches of ethanol flex fuel except when separate batches of ethanol flex fuel are commingled in a storage tank at an ethanol flex fuel retail station or wholesale purchaser-consumer facility.

(x) Add any hydrocarbon or ethanol blendstock to previously certified ethanol flex fuel.

* * * * *

(z) Cause another person to commit an act in violation of paragraphs (a) through (y) of this section.

■ 101. Newly redesignated § 80.1565 is amended by revising the section heading and paragraphs (a) and (b) to read as follows:

§ 80.1565 Liability for violations.

(a) *Persons liable.* Any person who violates § 80.1564 is liable for the violation. In addition, when the gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock contained in any storage tank at any facility owned, leased, operated, controlled, or supervised by any gasoline refiner, gasoline importer, oxygenate blender, carrier, distributor, reseller, retailer, ethanol flex fuel refiner, ethanol flex fuel importer, natural gasoline ethanol flex fuel blendstock refiner, natural gasoline ethanol flex fuel blendstock importer, or wholesale purchaser-consumer is found in violation of a fuel quality standard or a requirement related to the concentration of ethanol or natural gasoline in any gasoline or ethanol flex fuel, the following persons shall be deemed in violation:

(1) Each gasoline refiner, gasoline importer, oxygenate blender, ethanol flex fuel refiner, ethanol flex fuel importer, natural gasoline ethanol flex fuel blendstock refiner, natural gasoline ethanol flex fuel blendstock importer, carrier, distributor, reseller, retailer, or wholesale purchaser-consumer who owns, leases, operates, controls, or supervises the facility where the violation is found.

(2) Each gasoline refiner, gasoline importer, ethanol flex fuel refiner, ethanol flex fuel importer, natural gasoline ethanol flex fuel blendstock refiner, or natural gasoline ethanol flex fuel blendstock importer whose corporate, trade, or brand name, or whose marketing subsidiary's corporate, trade, or brand name, appears at the facility where the violation is found.

(3) Each gasoline refiner, gasoline importer, oxygenate blender, ethanol flex fuel refiner, ethanol flex fuel importer, natural gasoline ethanol flex fuel blendstock refiner, natural gasoline ethanol flex fuel blendstock importer, distributor, or reseller who manufactured, imported, sold, offered for sale, dispensed, supplied, offered for supply, stored, transported, or caused the transportation of any gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock that is in the storage tank containing gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock found to be in violation.

(4) Each carrier who dispensed, supplied, stored, or transported any gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock that is in the storage tank containing gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock found to be in violation, provided that EPA demonstrates, by reasonably specific showings using direct or circumstantial evidence, that the carrier caused the violation.

(b) For label violations under § 80.1564(b), only the wholesale purchaser-consumer or retailer and the branded gasoline refiner, branded gasoline importer, branded ethanol flex fuel refiner, or branded ethanol flex fuel importer, if any, shall be liable.

* * * * *

■ 102. Newly redesignated § 80.1566 is amended by revising the section heading and paragraph (a) to read as follows:

§ 80.1566 Penalties.

(a) Any person under § 80.1565 who is liable for a violation under § 80.1564 is subject to an administrative or civil penalty, as specified in Clean Air Act sections 205 and 211(d), for every day of each such violation and the amount of economic benefit or savings resulting from the violation.

* * * * *

■ 103. Newly redesignated § 80.1567 is amended by revising the section heading and paragraphs (a)(1) introductory text, (a)(1)(ii), (a)(1)(iii)(B), (a)(2)(i)(B), (a)(2)(i)(C), (a)(3), (b) introductory text, (b)(1), (b)(2) introductory text, (b)(3), (b)(4) introductory text, and (b)(4)(i) to read as follows:

§ 80.1567 Defenses for prohibited activities.

(a) * * *

(1) In any case in which a gasoline refiner, gasoline importer, oxygenate blender, ethanol flex fuel refiner, ethanol flex fuel importer, natural gasoline ethanol flex fuel blendstock refiner, natural gasoline ethanol flex fuel blendstock importer, carrier, distributor, reseller, retailer, or wholesale purchaser-consumer would be in violation under § 80.1564(a) and (c) through (z) it shall be deemed not in violation if it can demonstrate:

* * * * *

(ii) That product transfer documents account for all of the gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock in the storage tank found in violation and indicate that the gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock met relevant requirements; and

* * * * *

(iii) * * *

(B) A carrier may rely on the sampling and testing program carried out by another party, including the party that owns the gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock in question, provided that the sampling and testing program is carried out properly.

* * * * *

(2) * * *

(i) * * *

(B) The action of any reseller, distributor, oxygenate blender, ethanol flex fuel bulk blender-refiner, blender pump-refiner, carrier, or a retailer or wholesale purchaser-consumer supplied by any of these persons, in violation of a contractual agreement imposed by the gasoline refiner or ethanol flex fuel refiner designed to prevent such action, and despite periodic sampling and testing by the gasoline refiner or ethanol flex fuel refiner to ensure compliance with such contractual obligation; or

(C) The action of any carrier or other distributor not subject to a contract with the gasoline refiner or ethanol flex fuel refiner but engaged by the gasoline refiner or ethanol flex fuel refiner for transportation of gasoline or ethanol flex fuel, despite specification or inspection of procedures and equipment by the gasoline refiner or ethanol flex fuel refiner that are reasonably calculated to prevent such action.

* * * * *

(3) For label violations under § 80.1564(b), the branded gasoline refiner, branded gasoline importer, branded ethanol flex fuel refiner, or branded ethanol flex fuel importer shall not be deemed liable if the requirements of paragraph (b)(4) of this section are met.

(b) *Quality assurance program.* In order to demonstrate an acceptable quality assurance program for gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock at all points in the gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock distribution network, other than at retail outlets and wholesale purchaser-consumer facilities, a party

must present evidence of the following in addition to other regular appropriate quality assurance procedures and practices:

(1)(i) For gasoline, a periodic sampling and testing program to determine if the gasoline contains applicable maximum and minimum volume percent of ethanol.

(ii) For ethanol flex fuel or natural gasoline ethanol flex fuel blendstock, a periodic sampling and testing program to determine if the ethanol flex fuel or natural gasoline ethanol flex fuel blendstock meets the applicable maximum sulfur content standard and RVP standard.

(2) That on each occasion when gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock is found in noncompliance with one of the requirements referred to in paragraph (b)(1) of this section:

* * * * *

(3) An oversight program conducted by a carrier under paragraph (b)(1) or (b)(2) of this section need not include periodic sampling and testing of gasoline, ethanol flex fuel, and natural gasoline ethanol flex fuel blendstock in a tank truck operated by a common carrier, but in lieu of such tank truck sampling and testing the common carrier shall demonstrate evidence of an oversight program for monitoring compliance with the requirements of § 80.1564 relating to the transport or storage of gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock by tank truck, such as appropriate guidance to drivers on compliance with applicable requirements and the periodic review of records normally received in the ordinary course of business concerning gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock quality and delivery.

(4) The periodic sampling and testing program specified in paragraph (b)(1) or (b)(2) of this section shall be deemed to have been in effect during the relevant time period for any party, including branded gasoline refiners, branded gasoline importers, branded ethanol flex fuel importers, and branded ethanol flex fuel refiners if:

(i) An EPA approved survey program under § 80.1561 or § 80.1562 was in effect and was implemented fully and properly;

* * * * *

■ 104. Newly redesignated § 80.1568 is amended by revising paragraph (a), redesignating paragraph (b) as paragraph (f), and adding new paragraph (b) and paragraphs (c) through (e).

The revision and additions read as follows:

§ 80.1568 What evidence may be used to determine compliance with the requirements of this subpart and liability for violations of this subpart?

(a) Compliance with the ethanol content of gasoline or ethanol flex fuel shall be determined based on the ethanol content of the gasoline or ethanol flex fuel measured or otherwise determined, as applicable, using any of the applicable methodologies specified in § 80.46, § 80.47, or § 80.1553. Any evidence or information, including the exclusive use of such evidence or information, may be used to establish the ethanol content of the gasoline or ethanol flex fuel if the evidence or information is relevant to whether the ethanol content of the gasoline or ethanol flex fuel would have been in compliance with the standard if the appropriate sampling and testing methodologies had been correctly performed. Such evidence may be obtained from any source or location and may include, but is not limited to, test results using methods other than those specified in §§ 80.46, 80.47, and 80.1553, business records, and commercial documents.

(b) Compliance with the sulfur standards of this subpart shall be determined based on the sulfur content of the gasoline, denatured fuel ethanol, oxygenate, ethanol flex fuel, or certified natural gasoline ethanol flex fuel blendstock measured or otherwise determined, as applicable, using any of the applicable methodologies specified in § 80.46, § 80.47, or § 80.1553. Any evidence or information, including the exclusive use of such evidence or information, may be used to establish the sulfur content of the gasoline, denatured fuel ethanol, oxygenate, ethanol flex fuel, or certified natural gasoline ethanol flex fuel blendstock if the evidence or information is relevant to whether the sulfur content of the gasoline, denatured fuel ethanol, oxygenate, ethanol flex fuel, or certified natural gasoline ethanol flex fuel blendstock would have been in compliance with the standards if the appropriate sampling and testing methodologies had been correctly performed. Such evidence may be obtained from any source or location and may include, but is not limited to, test results using methods other than those specified in §§ 80.46, 80.47, and 80.1553, business records, and commercial documents.

(c) Compliance with the benzene standards of this subpart shall be determined based on the benzene content of the gasoline, ethanol flex fuel, or certified natural gasoline ethanol flex fuel blendstock measured or otherwise determined, as applicable, using any of the applicable methodologies specified in § 80.46, § 80.47, or § 80.1553. Any evidence or information, including the exclusive use of such evidence or information, may be used to establish the benzene content of the gasoline, ethanol flex fuel, or certified natural gasoline ethanol flex fuel blendstock if the evidence or information is relevant to whether the benzene content of the gasoline, ethanol flex fuel, or certified natural gasoline ethanol flex fuel blendstock would have been in compliance with the standard if the appropriate sampling and testing methodologies had been correctly performed. Such evidence may be obtained from any source or location and may include, but is not limited to, test results using methods other than those specified in §§ 80.46, 80.47, and 80.1553, business records, and commercial documents.

(d) Compliance with the RVP standards of this subpart shall be determined based on the maximum psi of the gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock measured or otherwise determined, as applicable, using any of the applicable methodologies specified in § 80.46, § 80.47, or § 80.1553. Any evidence or information, including the exclusive use of such evidence or information, may be used to establish the RVP of the gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock if the evidence or information is relevant to whether the RVP of the gasoline, ethanol flex fuel, or natural gasoline ethanol flex fuel blendstock would have been in compliance with the standard if the appropriate sampling and testing methodologies had been correctly performed. Such evidence may be obtained from any source or location and may include, but is not limited to, test results using methods other than those specified in §§ 80.46, 80.47, and 80.1553, business records, and commercial documents.

(e) Compliance with the T90 distillation point and final distillation point standards of this subpart for natural gasoline ethanol flex fuel blendstock shall be determined based on the maximum degrees Celsius of the natural gasoline ethanol flex fuel blendstock measured or otherwise determined, as applicable, using any of the applicable methodologies specified in § 80.46, § 80.47, or § 80.1553. Any evidence or information, including the exclusive use of such evidence or information, may be used to establish the T90 distillation point and final distillation point of the natural gasoline

ethanol flex fuel blendstock if the evidence or information is relevant to whether the T90 distillation point and final distillation point of the natural gasoline ethanol flex fuel blendstock would have been in compliance with the standard if the appropriate sampling and testing methodologies had been correctly performed. Such evidence may be obtained from any source or location and may include, but is not limited to, test results using methods other than those specified in §§ 80.46, 80.47, and 80.1553, business records, and commercial documents.

* * * * *

■ 105. Section 80.1569 is added to read as follows:

§ 80.1569 Attest engagement requirements.

In addition to the requirements for attest engagements that apply to refiners and importers under §§ 80.125 through 80.130, 80.1666, and other sections of this part, the following annual attest engagement procedures are required under this subpart.

(a) *Ethanol flex fuel full-refiners, ethanol flex fuel importers, ethanol flex fuel bulk blender-refiners, certified natural gasoline ethanol flex fuel blendstock refiners, and certified natural gasoline ethanol flex fuel blendstock importers, subject to national standards.* The provisions of this section apply to ethanol flex fuel full-refiners, ethanol flex fuel importers, ethanol flex fuel bulk blender-refiners, certified natural gasoline ethanol flex fuel blendstock refiners, and certified natural gasoline ethanol flex fuel blendstock importers. Blender pump-refiners that comply with the requirements of § 80.1523 are exempt from the attest engagement requirements of this section.

(b) *EPA reports for ethanol flex fuel full-refiners and importers.* (1) Obtain and read a copy of the ethanol flex fuel refiner's or importer's annual reports filed with EPA for the year under § 80.1551(a) and any underlying records maintained under § 80.1552(a).

(2) Agree the yearly volume reported to EPA with the inventory reconciliation analysis under the attest engagement provisions of § 80.128.

(3) Calculate the annual average sulfur level and annual average benzene level for all ethanol flex fuel and agree those values with the values reported to EPA.

(4) Agree the information in the ethanol flex fuel full-refiner's or importer's batch reports filed with EPA under § 80.1551(a), and any laboratory test results, with the information contained in the annual report required under § 80.1551(a).

(5) Reports as a finding any discrepancies identified in paragraphs (b)(1) through (4) of this section in the attest engagement report submitted to the EPA under § 80.130.

(c) *EPA reports for certified natural gasoline ethanol flex fuel blendstock.* (1) Obtain and read a copy of the certified natural gasoline ethanol flex fuel blendstock refinery's or importer's annual reports filed with EPA for the year under § 80.1551(c) and any underlying records maintained under § 80.1552(c).

(2) Agree the yearly volume reported to EPA with the inventory reconciliation analysis under the attest engagement provisions of § 80.128.

(3) Agree the information in the certified natural gasoline ethanol flex fuel blendstock refiner's or certified natural gasoline ethanol flex fuel blendstock importer's batch reports filed with EPA under § 80.1551(c), and any laboratory test results, with the information contained in the annual report required under § 80.1551(c).

(4) Report as a finding any discrepancies identified in paragraphs (c)(1) through (3) of this section in the attest engagement report submitted to the EPA under § 80.130.

(d) *EPA reports for ethanol flex fuel bulk blender-refiners.* (1) Obtain and read a copy of the ethanol flex fuel bulk blender-refiner's annual reports filed with EPA for the year under § 80.1551(b) and any underlying records maintained under § 80.1552(b).

(2) Agree the yearly volume reported to EPA with the inventory reconciliation analysis under the attest engagement provisions of § 80.128.

(3) Calculate the total volume of ethanol flex fuel blended, and agree those values with the values reported to EPA.

(4) Agree the information in the ethanol flex fuel bulk blender-refiners batch reports filed with EPA under § 80.1551(b), and any laboratory test results, with the information contained in the annual report required under § 80.1551(b).

(5) Report as a finding any discrepancies identified in paragraphs (d)(1) through (4) of this section in the attest engagement report submitted to the EPA under § 80.130.

§§ 80.1570–80.1579 [Reserved]

■ 106. Reserved §§ 80.1570 through 80.1579 are added.

■ 107. Section 80.1580 is added to read as follows:

§ 80.1580 Incorporation by reference.

The published materials identified in this section are incorporated by reference into this subpart 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, a document must be published in the **Federal Register** and the material must be available to the public. All approved materials are available for inspection at the Air and Radiation Docket and Information Center (Air Docket) in the EPA Docket Center (EPA/DC) at Rm. 3334, William Jefferson Clinton Building West, 1301 Constitution Ave. NW., Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742. These approved materials are also 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.* In addition, these materials are available from the sources listed below.

(a) *ASTM International material.* The following standards are available from ASTM International, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428–2959, (877) 909–ASTM, or *http://www.astm.org*:

(1) ASTM D4057–12, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, approved December 1, 2012.

(2) ASTM D4177–95 (Reapproved 2010), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, approved May 1, 2010.

(3) ASTM D5842–14, Standard Practice for Sampling and Handling of Fuels for Volatility Measurement, approved July 1, 2009.

(4) ASTM D5854–96 (Reapproved 2010), Standard Practice for Mixing and Handling of Liquid Samples of Petroleum and Petroleum Products, approved May 1, 2010.

(5) ASTM D2622–10, Sulfur Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry, approved February 15, 2010.

(6) ASTM D1266–13, Sulfur Test Method for Sulfur in Petroleum Products (Lamp Method), approved June 15, 2013.

(7) ASTM D3120–08 (Reapproved 2014), Standard Test Method for Trace Quantities of Sulfur in Light Liquid Petroleum Hydrocarbons by Oxidative

Microcoulometry, approved May 1, 2014.

(8) ASTM D5453–12, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Spark Ignition Engine Fuel, Diesel Engine Fuel, and Engine Oil by Ultraviolet Fluorescence, approved November 1, 2012.

(9) ASTM D6920–13, Standard Test Method for Total Sulfur in Naphthas, Distillates, Reformulated Gasolines, Diesels, Biodiesels, and Motor Fuels by Oxidative Combustion and Electrochemical Detection, approved September 15, 2013.

(10) ASTM D7220–12, Standard Test Method for Sulfur in Automotive, Heating, and Jet Fuels by Monochromatic Energy Dispersive X-ray Fluorescence Spectrometry, approved June 15, 2012.

(11) ASTM D7039–13, Standard Test Method for Sulfur in Gasoline, Diesel Fuel, Jet Fuel, Kerosine, Biodiesel, Biodiesel Blends, and Gasoline-Ethanol Blends by Monochromatic Wavelength Dispersive X-ray Fluorescence Spectrometry, approved September 15, 2013.

(12) ASTM D5769, Standard Test Method for Determination of Benzene, Toluene, and Total Aromatics in Finished Gasolines by Gas Chromatography/Mass Spectrometry, approved May 1, 2010.

(13) ASTM D5580–13, Standard Test Method for Determination of Benzene, Toluene, Ethylbenzene, p/m-Xylene, o-Xylene, C9 and Heavier Aromatics, and Total Aromatics in Finished Gasoline by Gas Chromatography, approved September 15, 2013.

(14) ASTM D3606, Standard Test Method for Determination of Benzene and Toluene in Finished Motor and Aviation Gasoline by Gas Chromatography, approved October 1, 2010.

(15) ASTM D6730–01 (Reapproved 2011), Standard Test Method for Determination of Individual Components in Spark Ignition Engine Fuels by 100-Metre Capillary (with Precolumn) High-Resolution Gas Chromatography, approved May 1, 2011.

(16) ASTM D5191–13, Standard Test Method for Vapor Pressure of Petroleum Products (Mini Method), approved December 1, 2013.

(17) ASTM D5482–07 (Reapproved 2013), Standard Test Method for Vapor Pressure of Petroleum Products (Mini-Method—Atmospheric), approved June 1, 2013.

(18) ASTM D6378–10, Standard Test Method for Determination of Vapor Pressure (VPx) of Petroleum Products, Hydrocarbons, and Hydrocarbon Oxygenate Mixtures (Triple Expansion Method), approved October 1, 2010.

(19) ASTM D86–05, Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure, approved July 1, 2005.

(20) ASTM D5599–00(2010), Standard Test Method for Determination of Oxygenates in Gasoline by Gas Chromatography and Oxygen Selective Flame Ionization Detection, approved October 1, 2010.

(21) ASTM D4815–15a, Standard Test Method for Determination for MTBE, ETBE, TAME, DIPE, tertiary-Amyl Alcohol and C1 to C4 Alcohols in Gasoline by Gas Chromatography, approved April 21, 2015.

(b) *National Institute of Standards and Technology Material.* NIST Handbook 158 (2016) is available from the National Institute of Standards and Technology, 100 Bureau Drive, Gaithersburg, MD 20899–1070, (301) 975–6478, or *http://www.nist.gov/pml/wmd/pubs/handbooks.cfm*.

Subpart O—Gasoline Sulfur

§ 80.1600 [Amended]

■ 108. Section 80.1600 is amended by removing the definition for ''Ethanol denaturant''.

■ 109. Section 80.1603 is amended by:

■ a. Revising paragraph (d)(1);

■ b. Redesignating paragraph (d)(2) as paragraph (d)(3) and adding a new paragraph (d)(2); and

■ c. In the equation in paragraph (f)(1) revising the definition of ''OC''.

The revisions and addition read as follows:

§ 80.1603 Gasoline sulfur standards for refiners and importers.

* * * * *

(d) * * *

(1) The refiner or importer shall calculate the sulfur content of the batch by volume weighting the sulfur content of the gasoline or BOB and the sulfur content of the added oxygenate pursuant to one of the methods listed in paragraphs (d)(1)(i) and (ii) of this section. A refiner or importer must choose to use only one method during each annual compliance period.

(i) Testing the sulfur content of a sample of the oxygenate pursuant to § 80.46 or § 80.47, as applicable. The refiner or importer must demonstrate through records relating to sampling, testing, and blending that the test result was derived from a representative sample of the oxygenate that was blended with the batch of gasoline or BOB.

(ii) If the oxygenate is denatured fuel ethanol, and the sulfur content has not been tested under paragraph (d)(1)(i) of this section, then the sulfur content must be assumed to be 5.00 ppm.

(2) For denatured fuel ethanol, the refiner or importer may assume that the denatured fuel ethanol was blended with gasoline or BOB at a concentration of 10 volume percent, unless the refiner or importer can demonstrate that a different amount of denatured fuel ethanol was actually blended with a batch of gasoline or BOB.

(i) The refiner or importer of conventional gasoline or CBOB must comply with the requirements of § 80.101(d)(4)(ii).

(ii) The refiner or importer of reformulated gasoline or RBOB must comply with the requirements of § 80.69(a).

(ii) Any gasoline or BOB must meet the per-gallon sulfur standard of paragraph (a)(2) of this section prior to calculating any dilution from the oxygenate added downstream.

(iv) The reported volume of the batch is the combined volume of the reformulated gasoline, RBOB, conventional gasoline, or CBOB and the downstream added oxygenate.

* * * * *

(f) * * *

(1) * * *

OC = Sulfur credits used by the refinery or importer to show compliance, in ppm-gallons.

* * * * *

■ 110. Section 80.1608 is added to read as follows:

§ 80.1608 Gasoline sulfur standards and requirements for refiners that produce gasoline at a blender pump.

Beginning February 1, 2018, a refiner that produces E15 at a blender pump-refinery, as defined in § 80.1500, shall be deemed in compliance with the provisions of this subpart, provided the refiner is in compliance with the requirements for gasoline produced by blender pump-refiners in § 80.1530.

■ 111. Section 80.1609 is amended by revising the last sentence of paragraph (a) to read as follows:

§ 80.1609 Oxygenate blender requirements.

(a) * * * Such oxygenate blenders are subject to the requirements of paragraph (b) of this section, the requirements and prohibitions applicable to downstream parties, the requirements of § 80.1603(d)(3), and the prohibition specified in § 80.1660(e).

* * * * *

■ 112. Section 80.1616 is amended by revising paragraph (c)(3) to read as follows:

§ 80.1616 Credit use and transfer.

* * * * *

(c) * * *

(3) CR_{T2} credits generated under § 80.1615(d) from January 1, 2017, through December 31, 2019, may only be traded to and ultimately used from January 1, 2017, through December 31, 2019, by small refiners and small volume refineries approved under § 80.1622.

■ 113. Section 80.1622 is amended by revising paragraph (g) to read as follows:

§ 80.1622 Approval for small refiner and small volume refinery status.

* * * * *

(g) Small refiner and small volume refinery status applications, and any other correspondence required by this section, § 80.1620, or § 80.1621 shall be sent to the attention of ''Tier 3 Program (Small Refiner/Small Volume Refinery Application)'' to the address in § 80.10(a).

■ 114. Section 80.1625 is amended by revising paragraph (c)(2) to read as follows:

§ 80.1625 Hardship provisions.

* * * * *

(c) * * *

(2) Hardship applications under this section must be sent to the attention of ''Tier 3 Program (Hardship Application)'' to the address in § 80.10(a).

■ 115. Section 80.1650 is amended by revising paragraphs (b)(3), (e)(1)(iii)(A), and (g)(1)(iii)(A) to read as follows:

§ 80.1650 Registration.

* * * * *

(b) * * *

(3) Any oxygenate blender required to register shall do so by November 1, 2016, or at least 90 days in advance of the first date that such person will blend oxygenate into gasoline, RBOB, or CBOB where the resulting gasoline is subject to the gasoline sulfur standards under this subpart O.

* * * * *

(e) * * *

(1) * * *

(iii) * * *

(A) Whether records are kept on-site or off-site of the facility.

* * * * *

(g) * * *

(1) * * *

(iii) * * *

(A) Whether records are kept on-site or off-site of the facility.

* * * * *

■ 116. Section 80.1652 is amended by revising paragraph (a)(7) introductory text and adding paragraphs (a)(7)(v) and (a)(7)(vi) to read as follows:

§ 80.1652 Reporting requirements for gasoline refiners, gasoline importers, oxygenate producers, and oxygenate importers.

* * * * *

(a) * * *

(7) For each batch of BOB or gasoline produced or imported during the averaging period, all the following:

* * * * *

(v) The type and amount of oxygenate, along with identification of the method used to determine the type and amount of oxygenate content of the batch, as determined under § 80.1603(d).

(vi) The sulfur content of the oxygenate, reported to two decimal places, along with identification of the method used to determine the sulfur content of the oxygenate, as determined under § 80.1603(d).

* * * * *

■ 117. Section 80.1656 is amended by revising paragraph (h) to read as follows:

§ 80.1656 Exemptions for gasoline used for research, development, or testing purposes.

* * * * *

(h) *Submission.* Requests for research and development exemptions shall be sent to the attention of ''Tier 3 Program (R&D Exemption Request)'' to the address in § 80.10(a).

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