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40 CFR Part 80
Regulation of Fuels and Fuel Additives: RFS Pathways II, and Technical Amendments to the RFS Standards and E15 Misfueling Mitigation Requirements; Final Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 80

[EPA–HQ–OAR–2012–0401; FRL–9910–40–OAR]

RIN 2060–AR21

Regulation of Fuels and Fuel Additives: RFS Pathways II, and Technical Amendments to the RFS Standards and E15 Misfueling Mitigation Requirements

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: In this final rulemaking, the Environmental Protection Agency (EPA) is amending three separate sets of regulations relating to fuels. In amendments to the renewable fuels standard (RFS) program regulations, EPA is clarifying the number of cellulosic biofuel renewable identification numbers that may be generated for fuel made with feedstocks of varying cellulosic content, is specifying new and amended pathways for the production of renewable fuels made from biogas, and is clarifying or amending a number of RFS program regulations that define terms or address registration, recordkeeping, and reporting requirements. EPA is also making various changes to the misfueling mitigation regulations for gasoline that contains greater than 10 volume percent ethanol and no more than 15 volume percent ethanol (E15) and to the survey requirements associated with the ultra-low sulfur diesel program.

DATES: This rule is effective August 18, 2014.

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SUPPLEMENTARY INFORMATION:

I. Executive Summary

In this rule, EPA is amending three sets of regulations. First, as described in section IV of this preamble, EPA is amending certain parts of the RFS program regulations at 40 CFR part 80, subpart M. Some of the changes in this rule are of a substantive nature; others are more in the nature of technical corrections, including corrections of obvious omissions and errors in citation. In this final rule, EPA establishes requirements for determining the number of cellulosic biofuel Renewable Identification Numbers (RINs) that will be generated for fuel made from a range of cellulosic feedstocks. We also modify regulatory provisions related to renewable fuel made from biogas, including a new compressed natural gas (CNG)/liquefied natural gas (LNG) cellulosic biofuel pathway, and add a new cellulosic biofuel pathway for renewable electricity (used in electric vehicles) produced from biogas. These pathways have the potential to provide notable volumes of cellulosic biofuel for use in complying with the RFS program, since significant volumes of advanced biofuels are already being generated for fuel made from biogas, and in many cases this same fuel will qualify for cellulosic RINs when this rule becomes effective. The approval of these new cellulosic pathways could have an impact on EPA's projection of 2014 cellulosic biofuel volumes in the final 2014 RFS standards rulemaking. EPA noted the possibility of such an impact in its proposed rule.[1] Many of the changes in today's rule will facilitate the introduction of new renewable fuels under the RFS program. By qualifying these new fuel pathways, this rule provides opportunities to increase the volume of advanced, low-GHG renewable fuels—such as cellulosic biofuels—under the RFS program. EPA's analyses show significant lifecycle GHG emission reductions from these fuel types, as compared to the baseline gasoline or diesel fuel that they replace. In this rulemaking, EPA also clarifies or amends a number of RFS program regulations that define terms or address registration, recordkeeping, or reporting requirements. These include amendments related to: (1) Use of crop residue and corn kernel fiber as renewable fuel feedstock; (2) definition of ''small refinery''; (3) provisions for small blenders of renewable fuels; (4) when EPA may deactivate a company registration; (5) the use for registration purposes of ''nameplate capacity'' for certain production facilities that do not claim exemption from the 20% greenhouse gas (GHG) reduction threshold; and (6) clarifying what penalties apply under the RFS program.

EPA is also making various changes to the E15 misfueling mitigation regulations (E15 MMR) at 40 CFR part 80, subpart N. Among the E15 changes are technical corrections and amendments to sections dealing with labeling, E15 surveys, product transfer documents, and prohibited acts. We also amend the definitions of E10 and E15 in subpart N to address a concern about the rounding of ethanol content test results, in response to a question raised by some industry stakeholders.

In response to questions received from regulated parties, we amend the ultra-low sulfur diesel (ULSD) survey provisions in a manner that reduces the number of samples required. This will reduce costs and burdens associated with compliance for regulated parties, with no expected degradation in the highly successful environmental performance of the program. We received helpful comments from the public on these three issues, and provide response to them in this preamble.

We are not finalizing at this time all of the proposed changes in the Notice of Proposed Rulemaking.[2] Due to comments received and time constraints, we are not taking final action at this time on the proposed advanced butanol pathway, the proposed pathways for the production of renewable diesel, naphtha and renewable gasoline from biogas, or the proposed additional compliance requirements for non-RIN-generating foreign renewable fuel producers. We are also not taking final action at this time on the definition of ''producer'' for renewable CNG/LNG and renewable electricity from biogas sources, the definition of responsible corporate officer, or the proposed amendments to compliance related provisions for the alternative reporting method in § 80.1452. The Agency is deferring the final decision on these matters until a later time.

This preamble follows the following outline:

[1] 78 FR 71732, November 29, 2013.

[2] 78 FR 36042, June 14, 2013.

II. Why is EPA taking this action?

EPA is taking this action to amend various provisions in its regulations pertaining to the Renewable Fuels Standard (RFS) program (40 CFR part 80, subpart M) and misfueling mitigation for 15 volume percent (%) ethanol blends (E15) (40 CFR part 80, subpart N) to assist regulated parties in complying with RFS and E15 requirements. EPA is also amending the ultra low sulfur diesel (ULSD) survey provisions (40 CFR part 80, subpart I) to decrease regulatory burdens and costs.

III. Does this action apply to me?

Entities potentially affected by this action include those involved with the production, distribution and sale of transportation fuels, including gasoline and diesel fuel, or renewable fuels such as ethanol and biodiesel. Regulated categories and entities affected by this action include:

Category	NAICS Codes [a]	SIC Codes [b]	Examples of potentially regulated parties
Industry	324110	2911	Petroleum refiners, importers.
Industry	325193	2869	Ethyl alcohol manufacturers.
Industry	325199	2869	Other basic organic chemical manufacturers.
Industry	424690	5169	Chemical and allied products merchant wholesalers.
Industry	424710	5171	Petroleum bulk stations and terminals.
Industry	424720	5172	Petroleum and petroleum products merchant wholesalers.
Industry	454310	5989	Fuel dealers.
Industry	486210	4922	Pipeline Transportation of Natural Gas.
Industry	221117	4911	Biomass Electric Power Generation.
Industry	562212	4953	Solid Waste Landfill.
Industry	562219	4953	Other Nonhazardous Waste Treatment and Disposal.
Industry	221320	4952	Sewage Treatment Facilities.

[a] North American Industry Classification System (NAICS).
[b] Standard Industrial Classification (SIC) system code.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware could be potentially 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 of part 80, subparts I, M and N of Title 40 of the Code of Federal Regulations. If you have any question regarding applicability of this action to a particular entity, consult the person in the preceding **FOR FURTHER INFORMATION CONTACT** section above.

IV. Renewable Fuel Standard (RFS) Program Amendments

In this rule, we are clarifying requirements related to existing cellulosic biofuel pathways under the RFS program, and adopting new cellulosic biofuel pathways. This rule also modifies a number of RFS program regulations.

A. Renewable Identification Number (RIN) Generation for Fuels Made From Feedstocks Containing Cellulosic Biomass

1. Background

The Clean Air Act (CAA) defines ''cellulosic biofuel'' as ''renewable fuel derived from any cellulose, hemicellulose, or lignin that is derived from renewable biomass and has lifecycle greenhouse gas emissions, as determined by the Administrator, that are at least 60 percent less than the baseline lifecycle greenhouse gas emissions.'' However, plants do not contain only cellulose, hemicellulose, and lignin; depending on the plant species and other variables (such as variety within a generic feedstock type and storage time) they can also contain varying amounts of other compounds. Using cellulosic biofuel production technologies, some of these other compounds may be converted, along with the cellulosic compounds of plant feedstocks, into renewable fuel. When this occurs, biofuel producers must ascertain what type of RIN or RINs to assign to the resulting renewable fuel. Prior to the proposal, EPA had not provided detailed information on how other compounds should be treated, which led to uncertainty amongst renewable fuel producers about whether their entire volume of fuel produced from a cellulosic feedstock would be eligible to generate cellulosic RINs.

In the proposed rule, EPA noted that existing RFS regulations specify that the fuel made from certain types of feedstocks that are predominantly of cellulosic content [3] (e.g., fuel made from the biogenic portion of separated municipal solid waste) are considered entirely made from cellulosic material.[4] EPA noted that these regulations have been based on the view that the statutory requirement that cellulosic biofuel be ''derived from cellulose, hemicellulose or lignin'' does not mandate that in all cases the renewable fuel must be produced only from the cellulosic material in the renewable biomass. Rather, EPA considers the statutory definition of cellulosic biofuel to be ambiguous on this point, providing EPA the discretion to reasonably determine under what circumstances a fuel appropriately should be considered cellulosic biofuel when the fuel is produced from a feedstock that contains a mixture of cellulosic and non-cellulosic materials.[5] Consistent with this view and the previously established statutory interpretation permitting assignment of a single RIN value to fuel produced predominantly from one source, EPA proposed that fuels made from feedstocks that are ''predominantly'' cellulosic should be considered cellulosic biofuel and that all of the volume of fuels from such feedstocks could generate cellulosic biofuel RINs. Accordingly, EPA proposed that the entire volume of fuel made pursuant to the cellulosic biofuel pathways in Table 1 to § 80.1426 be for cellulosic biofuel RINs (D code of 3 or 7), based on EPA's proposed determination that the feedstocks associated with those pathways are composed predominantly of cellulosic materials.[6]

EPA solicited comment in the Notice of Proposed Rulemaking (NPRM) on several alternative approaches, including a ''cellulosic content threshold approach.'' Under the cellulosic content threshold approach, EPA would set a minimum threshold of cellulosic content, and only fuels made from feedstocks meeting this minimum threshold would be eligible to generate cellulosic RINs for their entire fuel volume. EPA suggested possible thresholds in the range of 70% to 99.9%.

After evaluating the comments received, EPA has decided to finalize a cellulosic content approach, with a minimum cellulosic content threshold of 75%. In section IV.A.2, below, we discuss the merits of the approach generally, and how we intend to implement it for feedstocks used in cellulosic biofuel pathways listed in Table 1 to § 80.1426. This includes special provisions for energy cane and annual cover crops. In sections IV.A.3 and IV.A.4 we discuss how RINs should be allocated for fuel made from feedstocks containing less than 75% cellulosic content, and the registration, recordkeeping and reporting requirements associated with the rule. In section IV.A.5 we discuss application of the cellulosic content threshold approach to feedstocks evaluated in the future, and in section IV.A.6 we discuss in more detail the comments received and our responses to them.

2. The Cellulosic Content Threshold Approach and Its Application to Cellulosic Feedstocks Currently Listed in Table 1 to 40 CFR 80.1426

EPA has decided to finalize the cellulosic content threshold approach and to set the minimum threshold as an average adjusted cellulosic content of 75%, measured on a dry mass basis. Since inorganic materials are not likely to end up in the final fuel product and would not contribute to the fuel heating content in the event that they remained in the final fuel, the ''adjusted cellulosic content'' is the percent of organic (non-ash) material that is cellulose, hemicellulose, or lignin.[7] Consistent with previous precedents permitting assignment of a single RIN value to fuel produced predominantly from one source, fuels made from feedstocks that EPA determines meet this minimum threshold will, therefore, be eligible for cellulosic biofuel RINs for the entire fuel volume produced. As a result of this rule, all of the cellulosic biofuel made from the following feedstocks is eligible to generate cellulosic RINs for

[3] For purposes of this preamble, ''cellulosic content'' means cellulose, hemicellulose, and lignin.

[4] 75 FR 14670, 14706. In the March 2010 RFS rulemaking, EPA determined, in certain circumstances, it is appropriate for producers to base RIN assignment on the predominant component.

[5] 78 FR 36042, 36047.

[6] EPA included in the docket for the Notice of Proposed Rulemaking a Memorandum to the Docket, entitled ''Cellulosic Content of Various Feedstocks—2014 Update,'' available in docket EPA–HQ–OAR–2012–0401. This memorandum discusses the cellulosic content of various feedstocks, including most of the cellulosic feedstocks listed in cellulosic biofuel pathways in Table 1 to 40 CFR 80.1426. The memorandum notes that the average adjusted cellulosic content of these feedstocks is at least 75%. Because of the high degree of natural variability in biomass, average adjusted cellulosic contents are likely more meaningful than any single value reported, because no single value can reflect the compositional range and variability present.

[7] Further details about this determination can be found in the Memorandum to the Docket, ''Cellulosic Content of Various Feedstocks—2014 Update,'' available in docket EPA–HQ–OAR–2012–0401.

the entire volume of fuel produced: Crop residue, slash, pre-commercial thinnings and tree residue, switchgrass, miscanthus, Arundo donax, Pennisetum purpureum, and biogas from landfills, municipal wastewater treatment facility digesters, agricultural digesters, and separated MSW digesters (collectively ''predominantly cellulosic feedstocks''). In addition, EPA is not modifying existing rules that allow generation of cellulosic biofuel RINs for the entire volume of fuel made from separated yard waste, see 40 CFR 80.1426(f)(5)(i)(A), and for the biogenic portion of fuel made from separated MSW, see 75 FR 14706 and 40 CFR 80.1426(f)(5)(v), other than to clarify that the testing requirement to determine biogenic content of finished fuel made from separated MSW does not apply to biogas-derived fuels. For such fuels, the anaerobic process limits digestion and associated biogas generation to the biogenic components of separated MSW, so all resulting fuel is appropriately considered biogenic. Fuels made from feedstocks which do not meet the minimum 75% threshold, but which contain some level of cellulosic material, will be eligible to generate both cellulosic and non-cellulosic RINs using the apportionment methods described below.

However, EPA is taking a different approach with respect to the Table 1 cellulosic feedstocks energy cane and cover crops. Because considerable variability in cellulosic content may exist in plants that may be considered sugarcane or energy cane, we have amended the definition of energy cane to specify that it refers only to cultivars that have been demonstrated to contain an average adjusted cellulosic content of at least 75%. Fuel made through cellulosic biofuel pathways from feedstocks meeting the new definition of energy cane are eligible for cellulosic biofuel RINs for the entire fuel volume.

Annual cover crops will also be treated differently than other cellulosic feedstocks in Table 1. We do not have enough data about annual cover crops to be confident that they will always meet the 75% threshold. Therefore, in Table 1 annual cover crops will still be listed as ''cellulosic components of annual cover crops.'' However, we are also adding a new pathway for ''non-cellulosic components of annual cover crops,'' which will be eligible for advanced RINs. In the future, as more information becomes available, we may revisit this determination.

EPA believes that a 75% content threshold is consistent with the statutory definition of cellulosic biofuel, as EPA indicated in the NPRM, and satisfies the objective identified in the proposed rule of allowing fuels made from feedstocks that are ''predominantly'' cellulosic to generate cellulosic biofuel RINs for their entire fuel volume. A threshold of 75% also allows fuel made from all predominantly cellulosic feedstocks to generate RINs for their entire fuel volume, consistent with EPA's principal proposal. As compared to alternative approaches discussed in the NPRM, the approach will also greatly simplify compliance by cellulosic biofuel producers and reduce regulatory burden, since for qualifying cellulosic feedstocks the approach to RIN generation is straightforward and will not require testing or apportionment of RINs. These benefits, in turn, should help to promote cellulosic biofuel production, consistent with Congressional objectives. This final rule will help to ensure that cellulosic RINs are in fact only generated for fuels derived predominantly from cellulosic materials.

Because all of the fuel produced from predominantly cellulosic feedstocks will qualify for cellulosic biofuel RINs, EPA is making related modifications to the text in Table 1 to § 80.1426. Specifically we are deleting the references to ''cellulosic biomass from'' in rows K, L, M, and N to reflect that fuel made pursuant to the listed pathways from the feedstocks listed without this modifier are eligible to generate cellulosic biofuel RINs even though the feedstocks contain some non-cellulosic compounds. However, because certain production processes that can be used to produce cellulosic biofuel may be employed so as to only derive fuel from the non-cellulosic components of feedstock, EPA is also modifying the production process description in these lines in the table to specify that the production process must convert the cellulosic components of feedstock into biofuel. The effect is that cellulosic RINs may only be generated when a production process is employed that in fact produces biofuel that is derived from the cellulosic content of feedstocks.

Many commenters agreed that the cellulosic feedstocks currently listed in Table 1 are predominantly composed of cellulosic components and that allowing all of the fuel derived from these feedstocks to qualify for cellulosic biofuel RINs is consistent with the statutory definition of cellulosic biofuels. Some commenters asserted that allowing all the fuel produced from the cellulosic feedstocks in Table 1 was an overly expansive interpretation of the statutory definition of cellulosic biofuels.[8] EPA considers the statutory definition to be ambiguous on the point of whether cellulosic biofuel RINs may be generated for fuel produced from predominantly cellulosic material, allowing EPA discretion to reasonably interpret this definition. As established in previous rulemakings,[9] EPA believes the statutory definition does not mandate that in all cases cellulosic biofuel must be produced exclusively from cellulosic material in the renewable biomass, and today's rule adopts a common-sense approach to the matter that allows fuel made from predominantly cellulosic feedstocks to qualify as cellulosic biofuel.

In the NPRM, EPA invited comment on an appropriate threshold value for use with a cellulosic threshold approach. EPA received comments on a wide range of suggested threshold values, with many commenters supporting 70% and 80%, some suggesting multiple thresholds, and some commenters requesting much higher (95%) thresholds. Some commenters opposed setting a cellulosic content threshold because there is not a consensus on a value for a threshold, and one commenter asserted that setting a minimum threshold content may stifle development of new feedstocks. In response, EPA has decided that a cellulosic content threshold of 75% is a reasonable value that appropriately implements the statutory requirements.[10] Feedstocks which do not meet or exceed a 75% minimum cellulosic content threshold have a more significant non-cellulosic portion of the feedstock which could contribute to the volume of fuel produced. These feedstocks start to resemble traditional crops that have been developed for purposes other than energy generation, such as crops that are grown for their sugar content (e.g., sugarcane, sweet sorghum). EPA believes that a threshold significantly below 75% might inadvertently encourage use of multipurpose feedstocks for the production of fuels that are qualified for cellulosic RINs, in lieu of the feedstocks

[8] Comments provided by AFPM/API (EPA–HQ–OAR–2012–0401–0128) and Chevron (EPA–HQ–OAR–2012–0401–0171).

[9] EPA has previously considered instances where fuel would generate cellulosic biofuel RINs even if produced from feedstocks containing both cellulosic and non-cellulosic materials. In the March 2010 RFS rulemaking, EPA determined that biofuel from separated yard waste qualified as cellulosic and would generate cellulosic RINs because separated yard waste was ''largely cellulosic.'' 75 FR 14794, March 26, 2010.

[10] All fuel that qualifies for cellulosic biofuel RINs must achieve a minimum 60% lifecycle greenhouse gas emissions reduction as compared to baseline fuels, even if some portion of the fuel is derived from non-cellulosic materials.

with a higher cellulosic content that Congress envisioned would be used to produce this category of biofuel. On the other hand, a threshold higher than 75% would result in regulatory and administrative burdens on the use of predominantly cellulosic feedstocks.[11] EPA believes that the 75% threshold strikes a reasonable balance among these considerations, while remaining consistent with the statutory definition of cellulosic biofuels and past regulatory approaches that EPA has taken for specified feedstocks. While arguments could be made for other numeric values, EPA believes that a rational basis exists for settling on 75%, as explained in this rule, and is within EPA's exercise of discretion to reasonably interpret the CAA. EPA believes that the 75% threshold, which is well over a 50% or ''majority'' value, is consistent with the concept that cellulosic content should be predominant in feedstocks for which all resulting fuel is qualified for cellulosic biofuel RINs. The 75% threshold also eliminates the current regulatory uncertainty for cellulosic biofuel producers, minimizes regulatory burden, and as a consequence should help promote the production of the category of renewable fuels that provides the most lifecycle GHG emissions benefits.

3. Compliance Requirements for Producers of Cellulosic Biofuel Made From Feedstocks That Are Not Predominantly Cellulosic

In the proposal, EPA invited comment on how to determine the appropriate type of RIN or RINs for fuel that is produced from feedstocks that contain cellulosic material, but where the feedstocks are not predominantly cellulosic in content. Based on the comments received, EPA believes that the existing regulations at § 80.1426(f)(3)(vi) provide an appropriate mechanism for allocation of RINs, both for processes that convert two or more feedstocks simultaneously where not all feedstocks are predominantly cellulosic, and for processes using a single feedstock that has an average cellulosic content below 75%. However, EPA is amending the regulations, by adding new registration, recordkeeping, and reporting requirements (''RRR requirements'') to allow EPA to verify that the formula in § 80.1426(f)(3)(vi) is being applied appropriately for cellulosic biofuel RIN generation. EPA believes that, to relieve regulatory burden and streamline program implementation, it makes sense to establish a 75% minimum cellulosic content threshold above which testing and reporting of cellulosic content and RIN apportionment is not necessary. However, when fuel is made from feedstocks below the 75% cellulosic content threshold, EPA believes that testing of the feedstock's cellulosic content is appropriate, and that RINs should be apportioned according to the test results.

EPA recognizes that one result of today's rule is that fuel made from a feedstock meeting the 75% minimum cellulosic content threshold will qualify completely for cellulosic RINs, whereas fuel made from a feedstock containing 74% cellulosic content would, through the apportionment formula, only qualify for at most 74% cellulosic RINs. EPA believes it is appropriate to have simplified procedures for fuel made from feedstocks that are predominantly cellulosic, and has selected a 75% threshold to identify these feedstocks. At some level of content, EPA believes there is less benefit to requiring that manufacturers account for the increasingly small non-cellulosic content of the feedstock. EPA has determined that 75% cellulosic content is a large enough percentage that it is appropriate to allow full qualification. This results in a simplified implementation approach for the large majority of feedstocks typically considered ''cellulosic'' in nature. While this obviously allows significantly greater benefits to producers using feedstocks above 75% cellulosic content, compared with fuel derived from feedstocks containing just below 75% cellulosic content, the difference is the inevitable result of having any sort of threshold level. Wherever EPA set the threshold, fuels made from feedstocks that just fail to satisfy the threshold will be treated differently. For the reasons provided, EPA believes that the approach is reasonable and appropriate.

As one possible approach to addressing the disparity between fuels made from feedstocks that meet the 75% minimum cellulosic content threshold and those that do not, EPA considered the option of allowing up to an additional 25% of fuel made from feedstock not meeting the threshold to qualify for cellulosic biofuel RINs, beyond levels that are determined to reflect the cellulosic converted fraction. While this approach could be seen as providing more equitable treatment of fuels made from feedstocks that satisfy the 75% cellulosic content threshold and those that do not, EPA determined that it would be inappropriate. The principal objective of the cellulosic content approach adopted today is to minimize burdens and streamline program implementation for both EPA and producers of cellulosic biofuel and provide incentives for production of fuels that are 75% or greater cellulosic content. However, for fuels made from feedstocks that do not meet the minimum cellulosic content threshold, testing (either of cellulosic content of feedstock or of the proportion of fuel derived from cellulosic content) will be required. In cases where the expense and burden of testing is undertaken, EPA believes it is most consistent with the objectives of the Act for RIN apportionment to accurately reflect the test results.

4. Testing, Registration, Reporting and Recordkeeping Requirements for Cellulosic Biofuel

The agency requested comment on test methods available to determine what percentage of a finished biofuel volume was derived from cellulosic or non-cellulosic components. At the time of the proposal, we were not aware of any ready test that could be used to identify the amount of a finished fuel that was derived from cellulosic versus non-cellulosic components. However, we received several comments that suggested there are methods available for this purpose.[12] Given this new information, we believe it is reasonable to require the use of these existing methods under certain circumstances when fuel is produced from feedstocks that are not predominantly cellulosic to verify that the values used in the formula at § 80.1426(f)(3)(vi) are as accurate as possible. Therefore, as part of this final rule, we are requiring the use of these available test methods under certain circumstances described below to help ensure that an appropriate number of cellulosic RINs are generated when applying the formula at § 80.1426(f)(3)(vi).

As described in more detail below, different feedstocks and processes require more information to ensure a

[11] Requirements for determining the number of cellulosic biofuel RINs that may be generated for fuel derived from feedstocks that do not satisfy the minimum cellulosic content threshold adopted in today's rule are described in section IV.A.3 of this preamble.

[12] Comments suggested various methods to determine the converted fraction, including approaches for performing a mass-balance accounting of feedstock components converted to fuel products. As described in the memo to the docket, ''Additional Detail on the Calculation of the Cellulosic Converted Fraction, and Attribution of Batch RINs for D-code Dependent Feedstocks,'' available in docket EPA–HQ–OAR–2012–0401, a mass balance approach which meets the requirements discussed below is an appropriate method for calculating the converted fraction. Converted fraction refers to the portion of the feedstock converted into renewable fuel by the producer and is used in calculating cellulosic RIN volumes generated.

high degree of confidence that cellulosic biofuel RINs are appropriately generated. These registration, recordkeeping, and reporting requirements, including changes to the production process requirements of Table 1 to § 80.1426, are described in the following sections. These requirements apply to all relevant registrations and registration updates, including cellulosic biofuel pathways approved pursuant to a § 80.1416 petition process which take place after the effective date of this rule.

a. Additional Registration Requirements for Certain Producers Seeking To Generate Cellulosic Biofuel RINs

At registration or during registration updates under § 80.1450(d)(3), all producers seeking to use a cellulosic biofuel pathway that converts cellulosic biomass to fuel (currently rows K, L, M, and N of Table 1 to § 80.1426, or as otherwise approved by EPA), must demonstrate that their production process has the ability to convert cellulosic components to fuel by including (1) a process diagram with all relevant unit processes labeled and a designation of which unit process is capable of performing cellulosic treatment; (2) a description of the cellulosic biomass treatment process; and (3) a description of the mechanical, chemical, and biochemical mechanisms by which cellulosic materials can be converted to fermentable sugars or biofuel products. In addition, an independent professional engineer must verify that the equipment to perform each of the relevant unit processes required to convert cellulosic biomass to biofuel is in place as part of registration, in order to demonstrate that the conversion process will derive the finished fuel from cellulosic components.

b. Additional Registration Requirements for Renewable Fuel Produced From Energy Cane

Energy cane is derived from sugarcane, which can be and is bred for a variety of uses and a wide range of fiber and sugar contents.[13] Prior to this rule, energy cane was defined in 40 CFR 80.1401 as ''a complex hybrid in the Saccharum genus that has been bred to maximize cellulosic rather than sugar content.'' This definition did not include any specific requirements regarding cellulosic content. However, some cultivars [14] of cane are bred to have a high sugar content and therefore have a lower percent cellulosic content. For example, two cultivars released by USDA, which are commonly referred to as energy cane,[15] have cellulosic contents of approximately 50% on a dry matter basis.[16] Fuel produced from these cultivars would not be derived predominantly from cellulose, hemicellulose, and lignin; instead, the fuel would largely be derived from sugar. Therefore, in this rule EPA is amending the definition of energy cane to specify that it means cultivars that have, on average, at least 75% adjusted cellulosic content on a dry matter basis. Cultivars that do not meet the 75% adjusted cellulosic content threshold will be considered sugarcane. With this clarification, only cultivars that have predominantly cellulosic content are included in the definition of energy cane and are qualified to generate cellulosic RINs for the entire volume of finished fuel produced. When cultivars containing less than 75% adjusted cellulosic content are used to make fuel, we consider those cultivars to be sugarcane and eligible to generate advanced biofuel RINs for the portion of fuel that is derived from sugar. If the bagasse is converted to renewable fuel, cellulosic RINs could be generated for the amount of fuel derived from the bagasse (under the existing crop residue pathway).

Upon registration, fuel producers seeking to produce cellulosic biofuel using energy cane feedstocks will need to submit data showing that the average adjusted cellulosic content of each energy cane cultivar they intend to use is at least 75%, based on the average of at least three representative samples of each cultivar.[17] Cultivars must be grown under normal growing conditions and consistent with accepted farming practices. Samples must come from a feedstock supplier that the fuel producer intends to use when operating their production process and must represent the feedstock supplier's range of growing conditions and locations. Producers that decide after initial registration to use energy cane or a new energy cane cultivar will need to update their registration and provide data to EPA demonstrating the average adjusted cellulosic content for each cultivar they intend to use. Cellulosic content data must come from an analytical method certified by a voluntary consensus standards body (VCSB) or a non-VCSB method that would produce reasonably accurate results.[18] Producers using a non-VCSB approved method will need to show that the method used is an adequate means of providing reasonably accurate results by providing peer reviewed references to the third party engineer performing the engineering review at registration. Because cane can be bred for a variety of uses, and different cultivars of cane can have different amounts of cellulosic material, these registration requirements will help ensure that fuel producers know whether or not the cultivars they intend to use meet the 75% adjusted cellulosic content threshold and are qualified to generate RINs for the entire volume of finished fuel. EPA expects to require similar registration requirements for producers seeking to produce cellulosic biofuel using feedstocks that will be evaluated in the future that could similarly be bred for a wide range of uses and fiber content.

[13] Tew, Thomas L. and Robert M. Cobill. 2008. Genetic improvement of sugarcane (*Saccharum* spp.) as an energy crop. p. 249–272. In: W. Vermerris (ed.) Genetic Improvement of Bioenergy Crops. Springer.

[14] A cultivar is a subset of a species. USDA has provided a list of sugarcane cultivars (including energy cane). This list, ''USDA ARS Sugarcane Release Notices 1999 to 2012,'' is included in the docket.

[15] Ho 00–961 and HoCP 91–552; Tew, Thomas L. and Robert M. Cobill. 2008. Genetic improvement of sugarcane (*Saccharum* spp.) as an energy crop. p. 249–272. In: W. Vermerris (ed.) Genetic Improvement of Bioenergy Crops. Springer.

[16] Tew, T. L. et al., 2007. ''Notice of release of high-fiber sugarcane variety Ho 00–961.'' Sugar Bulletin, 85(10) 23–24. Tew, T. L. et al, 2007. ''Notice of release of high-fiber sugarcane variety HoCP 91–552.'' Sugar Bulletin, 85(10) 25–26. Ho 00–961 has a Brix value of 17–19% cane, and HoCP 91–552 has a Brix value of 15–18% cane, where Brix is a measure of the total soluble solids, including sugar. These Brix values are similar to the Brix value of a traditional sugarcane cultivar presented in these papers. Ho 00–961 has a percent cellulosic content of 47%, and HoCP 91–552 has a percent cellulosic content of 48%. The percent cellulosic content is calculated using the fiber content (as a measure of the cellulosic content) presented in the papers, divided by the total solids content (Brix + fiber). By contrast, energy cane cultivar L 79–1002, which has a higher fiber content, has a Brix value of 8–12% cane, as reported by Bischoff, K.P. et al., 2008. ''Registration of 'L 79–1002' sugarcane.'' Journal of Plant Registrations, 2(3) 211–217, and Hale, A.L. 2010, ''Notice of release of a high fiber sugarcane variety Ho 02–113.'' Sugar Bulletin, 88(10) 28–29.

[17] As described above and in the Memorandum to the Docket, ''Cellulosic Content of Various Feedstocks—2014 Update,'' available in docket EPA–HQ–OAR–2012–0401, adjusted cellulosic content is the percent of organic (non-ash) material that is cellulose, hemicellulose, and lignin. Therefore, a calculation of the adjusted cellulosic content requires a measurement of the cellulosic content, as well as a measurement of the ash content of a feedstock.

[18] For example, AOAC 2002.04 ''Amylase-Treated Neutral Detergent Fiber in Feeds'' or ASTM E1758 ''Determination of Carbohydrates in Biomass by High Performance Liquid Chromatography.'' Voluntary consensus standards bodies are defined as ''domestic or international organizations which plan, develop, establish, or coordinate voluntary standards using agreed-upon procedures.'' See ''Federal Use of Standards,'' Office of Management and Budget, *http://www.whitehouse.gov/omb/fedreg_a119rev.*

c. Additional Registration, Recordkeeping, and Reporting Requirements for Producers of Cellulosic Fuels Derived From the Simultaneous Conversion of Feedstocks That Are Predominantly Cellulosic and Feedstocks That Are Not Predominantly Cellulosic

Under § 80.1426(f)(3)(vi), if a renewable fuel producer produces a single type of renewable fuel (e.g., ethanol) using two or more different feedstocks which are processed simultaneously, and at least one of the feedstocks does not have a minimum 75% average adjusted cellulosic content, the producer would have to determine how much of the finished fuel is derived from the cellulosic versus non-cellulosic components of the feedstocks and assign RINs to the finished fuel based on the relative ''converted fractions.'' [19] Given variations in individual conversion processes, enzymes used, and other differences, the amount of finished fuel that is derived from the cellulosic content can vary. For example, the process and enzymes used may do a better job of converting the sugars and starches in a feedstock than the cellulose or hemicellulose. In such a case the cellulosic content of the feedstock may not be a good indicator of the amount of finished biofuel that is derived from cellulosic materials. Furthermore, depending on the conversion process used, the amount of information needed to determine how much of the finished fuel is derived from the cellulosic content will also vary.

Therefore, EPA believes it is prudent to include specific requirements related to calculating the cellulosic converted fraction and to specify appropriate registration, recordkeeping, and reporting requirements for producers seeking to generate cellulosic RINs using two or more feedstocks [20] which are processed simultaneously. EPA has attempted to minimize additional requirements, so has limited certain provisions to circumstances where a producer seeks to generate cellulosic RINs for fuel produced by *''in situ''* biochemical hydrolysis treatment where cellulosic and non-cellulosic components of feedstocks (at least one of which is not predominantly cellulosic) are simultaneously hydrolyzed to fermentable sugars (e.g., corn starch and a crop residue). These additional registration, recordkeeping, and reporting requirements will also apply to producers that combine cellulosic- and non-cellulosic-derived sugars from separate hydrolysis units prior to fermentation. In the latter case, the cellulosic conversion factor can be obtained by analyzing feedstock conversion in the cellulosic hydrolysis unit.

A fundamental distinction relevant to verifying conversion of cellulosic content is whether or not a process converts the entire organic fraction into fuel. Thermochemical conversion is an example of a process that converts the entire organic fraction. Thermochemical processes mainly consist of (1) pyrolysis: a process in which cellulosic biomass is decomposed with temperature to bio-oils that can be further processed to produce a finished fuel or (2) gasification: a process in which cellulosic biomass is decomposed to synthesis gas (''syngas'') that with further catalytic processing can produce a finished fuel product. Thermochemical processes typically convert all of the organic components of the feedstock into finished fuel, thus the finished fuel produced from the thermochemical process is proportional to the cellulosic content of the organic fraction of the feedstock material.

Alternatively, biochemical conversion is an example of a non-thermochemical type of process that does not convert the entire organic fraction into fuel. Biochemical processes convert different fractions of the cellulosic and non-cellulosic carbohydrates to finished fuel. During this process, enzymatic hydrolysis releases sugars from feedstock carbohydrates and employs microorganisms to convert those sugars into fuels.

Since thermochemical processes typically convert all of the organic components of the feedstock into finished fuel, fewer recordkeeping and reporting requirements are necessary to verify appropriate cellulosic biofuel RIN generation for producers using thermochemical conversion processes. In addition, since the finished fuel produced from the thermochemical process is proportional to the cellulosic content of the organic fraction of the feedstock material, demonstration of the cellulosic content of the feedstock is the only additional registration requirement that is necessary for thermochemical processes. In contrast, biochemical conversion does not convert the entire organic fraction into fuel and the converted fraction is variable and not proportional to the cellulosic content of the organic fraction of the feedstock material. Therefore, we believe it is prudent to require additional registration, reporting, and recordkeeping requirements for *in situ* biochemical conversion processes to ensure that cellulosic RINs are appropriately generated for the finished fuel.

In the proposal, EPA requested comment on conversion technologies, and we also requested comment on whether to allow 100% of the fuel produced via biochemical processes to generate cellulosic RINs. EPA received comments supporting our proposal to allow biochemical processes to generate 100% cellulosic RINs but, as discussed above, biochemical processes will also typically convert portions of the sugar and starch components of the feedstock. If feedstocks containing significant amounts of starches and sugars are used in a biochemical process, the resulting fuel may not be predominantly of cellulosic origin. Therefore, EPA is not finalizing this aspect of its proposal. Instead, EPA has finalized the cellulosic threshold approach which will generally allow cellulosic biofuel RIN generation for all fuel produced by cellulosic conversion processes using feedstocks determined to have an average adjusted cellulosic content of at least 75%.

i. Registration Requirements

As explained in section IV.A.4.a, at registration, producers seeking to use a cellulosic biofuel pathway that converts cellulosic biomass to fuel (currently listed in rows K, L, M, and N of Table 1 to § 80.1426), or as otherwise approved by EPA, must demonstrate the ability to convert cellulosic components of their feedstock to fuel. In addition, producers seeking to generate cellulosic RINs (D code of 3 or 7) using two or more different feedstocks (at least one of which does not have at least 75% average adjusted cellulosic content) which are processed simultaneously using a thermochemical conversion process will be able to allocate cellulosic RINs using the formula in § 80.1426(f)(3)(vi) where the cellulosic fraction is proportional to the cellulosic content of the feedstock. The average adjusted cellulosic content of the feedstock will have to be reported at registration, based on the average of at least three representative samples, and cellulosic content data must come from an analytical method certified by a voluntary consensus standards body (VCSB) or a non-VCSB method that would produce reasonably accurate

[19] See § 80.1426(f)(3)(vi). Converted fraction refers to the portion of the feedstock converted into renewable fuel by the producer and is used in calculating cellulosic RIN volumes generated.

[20] As described in section IV.A.5, if a future feedstock does not meet the 75% threshold, we consider it as comprised of two separate feedstocks: one cellulosic and one non-cellulosic.

results.[21] Producers using a non-VCSB approved method will need to show that the method used is an adequate means of providing reasonably accurate results by providing peer reviewed references to the third party engineer performing the engineering review at registration. Producers that later want to change their feedstock will need to update their registration. Parties that initially registered prior to the effective date of this rule must comply with the new requirements at their next required registration update.

Producers generating RINs with a D code of 3 or a D code of 7 using two or more different feedstocks (at least one of which does not have at least 75% average adjusted cellulosic content) which are processed simultaneously through an *in situ* biochemical hydrolysis treatment will similarly have additional registration requirements to help ensure that cellulosic RINs are being generated accurately. At the time of registration, such a producer must submit (1) the overall fuel yield [22] including supporting data demonstrating this yield and a discussion of the possible variability in overall fuel yield that could be expected between reporting periods; (2) the cellulosic converted fraction that will be used for generating RINs under § 80.1426(f)(3)(vi), including chemical analysis data (described in more detail below) supporting the calculated cellulosic converted fraction and a discussion of the possible variability that could be expected between reporting periods; and (3) a description of how the cellulosic converted fraction is determined and calculations showing how the data were used to determine the cellulosic converted fraction.

Data used to calculate the cellulosic converted fraction by producers using *in situ* biochemical hydrolysis treatment who seek to generate cellulosic RINs must be representative and obtained using an analytical method certified by a voluntary consensus standards body (VCSB) or using a non-VCSB method that would produce reasonably accurate results. If using a non-VCSB approved method to generate the data required to calculate the cellulosic converted fraction for a given fuel, then the producer will need to show that the method used is an adequate means of providing reasonably accurate results by providing peer reviewed references to the third party engineer performing the engineering review at registration. A full description of the formulas in § 80.1426(f)(3) used to calculate RINs for renewable fuel described by two or more pathways, including methods used to calculate the converted fraction, can be found in the associated memo to the docket.[23]

ii. Additional Cellulosic Converted Fraction Reporting and Recordkeeping Requirements

Producers generating cellulosic RINs using two or more different feedstocks (at least one of which does not have at least 75% average adjusted cellulosic content) which are processed simultaneously using an *in situ* biochemical hydrolysis treatment will also have additional recordkeeping and reporting requirements to provide ongoing verification that the cellulosic RINs are being accurately allocated.

The converted fraction provides a comprehensive accounting of the portion of a feedstock that is converted into cellulosic fuel. The formula in § 80.1426(f)(3)(vi) requires producers to calculate a converted fraction for each category of RINs generated. That converted fraction is then used to determine the appropriate number and type of RINs to assign to a batch of renewable fuel.

Comments suggested calculating the amount of the finished fuel derived from the cellulosic and non-cellulosic components could create an administrative burden if required on a batch-by-batch basis. EPA is structuring applicable registration, recordkeeping, and reporting requirements in a manner intended to result in accurate accounting while also avoiding overly burdensome requirements. Therefore the final rule provides that the cellulosic converted fraction will initially be based on the data submitted at registration.

This upfront converted fraction determination will apply to RINs produced until a new converted fraction allocation is available and reported. The interval at which a new converted fraction must be reported is similarly intended to avoid unnecessary burden on producers. EPA is requiring that low volume producers calculate the cellulosic converted fraction annually. However, for higher volume producers, we believe more frequent calculating and reporting is prudent and are requiring that the cellulosic converted fraction be recalculated within 10 business days of every 500,000 gallons of cellulosic RINs generated. This information will be reported in the quarterly report. Low-volume producers may report the current converted fraction value used to generate RINs on their quarterly reports if they have not produced 500,000 cellulosic gallons in the calendar year. Periodic cellulosic converted fraction determinations will be made by collecting new process data and performing the same chemical analysis approved at registration, using representative data. If at any point new data show that the converted fraction is different from that reported in the previous period, the formula used to generate RINs at § 80.1426(f)(3)(vi) must be updated as soon as practical but no later than 5 business days after the producer receives the new data. If new testing data results in a change to the cellulosic converted fraction, only RINs generated after the new testing data were received would be affected. In addition if a renewable fuel producer changes their process (for example, stops using enzymes in their cellulosic hydrolysis or changes the enzymes used), the producer must calculate a new converted fraction and update their registration consistent with § 80.1450(d).

Given the natural variation in cellulosic content and conversion efficiencies, EPA recognizes some variation will exist in the amount of cellulosic fuel that is derived from the cellulosic components of a feedstock. However, certain circumstances raise significant concerns with respect to cellulosic RIN generation. While we believe that variation within 10% of the previously calculated numbers may result under normal operating conditions, larger variations raise concerns that the process or feedstock has significantly changed from what was approved at registration. If the cellulosic converted fraction deviates from the previously calculated cellulosic converted fraction by 10% or more, it is appropriate for the producer to alert EPA to this change and update the formula used to calculate RIN allocations as soon as possible. The producer must (1) notify EPA within 5 business days and (2) adjust the formula used to generate RINs at § 80.1426(f)(3)(vi) for all fuel generated as soon as practical but no later than 5 business days after the producer receives the new data. As explained above, if new testing data results in a change to the cellulosic converted

[21] For example, AOAC 2002.04 ''Amylase-Treated Neutral Detergent Fiber in Feeds'' or ASTM E1758 ''Determination of Carbohydrates in Biomass by High Performance Liquid Chromatography.''

[22] The overall fuel yield is determined to be the total volume of fuel produced (e.g., cellulosic plus non-cellulosic fuel volume) divided by the total feedstock mass (sum of all feedstock masses) on a dry mass basis.

[23] ''Additional Detail on the Calculation of the Cellulosic Converted Fraction, and Attribution of Batch RINs for D-code Dependent Feedstocks,'' which is available in docket EPA–HQ–OAR–2012–0401.

fraction, only RINs generated after the new testing data were received would be affected.

5. Determining the Average Adjusted Cellulosic Content of Feedstocks Going Forward

EPA will apply the minimum average adjusted cellulosic content threshold framework described above for feedstocks evaluated in the future. If these feedstocks meet the 75% average adjusted cellulosic content threshold, we will allow the fuel producer using them in approved cellulosic biofuel pathways to generate cellulosic RINs for all of the finished fuel volume. If the feedstock does not meet the 75% threshold, we would expect to create two separate regulatory pathways—one involving ''cellulosic components of [feedstock X]'' and another involving ''non-cellulosic components of [feedstock X]''). A producer using both of these feedstocks which are processed simultaneously, would allocate cellulosic and non-cellulosic RINs using the formula in § 80.1426(f)(3)(vi). Fuel producers using feedstocks evaluated in the future would also be subject to the appropriate registration, reporting, and recordkeeping requirements described in section IV.A.4.

EPA anticipates that it will determine the cellulosic content of newly evaluated feedstocks that might be used to produce cellulosic biofuel up front when it conducts a lifecycle analysis of a pathway involving the new feedstock. For example, EPA will calculate the average adjusted cellulosic content of feedstocks such as energy sorghum and energy beets at the same time that we evaluate the lifecycle GHG emissions associated with these feedstocks. As with lifecycle analyses, EPA may undertake the evaluation of the cellulosic content of feedstocks either in the context of a rulemaking to amend Table 1 to § 80.1426, or in response to an individual petition submitted pursuant to § 80.1416. In either case, EPA will clarify whether the feedstock meets the 75% cellulosic content threshold allowing cellulosic RINs to be generated for the entire fuel volume produced, or if the producer should use the apportionment method in § 80.1426(f)(3)(vi). Future petitioners pursuant to the process in § 80.1416 should submit peer-reviewed data on the average cellulosic content of their feedstock as well as their own estimate of cellulosic content based on these data.

In the proposal, EPA sought comment on whether individual producers should be responsible for submitting data on the cellulosic content of their feedstock, or whether EPA should determine whether feedstocks meet the threshold based on existing published data. We received comments that EPA should determine whether feedstocks meet the threshold and should use existing published data. In addition, we received a range of opinions on whether the producer should also be required to provide data. Some comments suggested that EPA should use both existing published data and data from the producer, because academic publications may not be up to date with industry. Some comments said fuel producers should be allowed to present data if their feedstocks have higher cellulosic content than published data. One comment said that if no peer-reviewed data exist, the producers should provide data. Some comments suggested that producers should be required to maintain documentation of cellulosic content, as well as evidence that the cellulosic content was the primary source of biofuels production. Others commented that producers should not be required to measure, submit and certify feedstock composition. In the future, producers should submit data regarding cellulosic content in order to ensure a determination is made on the most up to date data. EPA will evaluate this information, together with other available information, on a case by case basis to determine whether feedstocks meet the cellulosic content threshold.

6. Other Comments Received

EPA considered a range of alternative approaches for determining appropriate cellulosic RIN generation with different types of feedstocks. These approaches were discussed in the NPRM and also evaluated in public comments. This section discusses these alternative approaches and comments.

a. Treatment of Cellulosic Feedstocks Currently Listed in Table 1 to 40 CFR 80.1426

In the NPRM, EPA sought comment on multiple approaches for determining the volume of cellulosic RINs from currently approved cellulosic feedstocks listed in Table 1 to § 80.1426. Many commenters preferred allowing feedstock sources listed in Table 1 to § 80.1426 to generate cellulosic RINs without applying a threshold, although some commenters asserted a minimum content threshold could be used in conjunction with the proposed approach. In addition, one commenter suggested adding ''planted trees from a tree plantation'' to Table 1 to § 80.1426.[24] However, this addition would require further analysis of the lifecycle greenhouse gas emissions of this feedstock, and is beyond the scope of this rule. As discussed above, EPA is finalizing the cellulosic content threshold approach that generally qualifies all fuel produced from predominantly cellulosic feedstocks pursuant to existing cellulosic biofuel pathways listed in Table 1 for cellulosic RINs. In addition, the approach will guide EPA evaluation of future feedstocks not currently included in Table 1 to § 80.1426.

Some commenters asserted EPA should adopt a plurality approach to determining whether cellulosic RINs could be generated when using particular feedstocks.[25] Instead of requiring that the cellulosic content make up a predominant percentage of the organic material from which the fuel is derived, under this approach, feedstocks would be deemed cellulosic if a plurality of the contained material is cellulosic. EPA acknowledges that such an approach would likely lead to larger production volumes of cellulosic biofuels. However, as discussed above, the statutory definition of cellulosic biofuel provides that they are ''derived from cellulose, hemicellulose, or lignin.'' EPA believes that to effectuate Congressional intent in promoting fuels derived from these sources, it is appropriate to require that qualifying fuels be predominantly cellulosic in content. Therefore the 75% cellulosic content threshold approach adopted today is preferable in this regard to the commenter's suggestion.

Other commenters contended EPA should establish a minimum cellulosic content for individual feedstocks and assign RINs based only on this content, instead of allowing feedstocks currently listed in Table 1 to § 80.1426 to generate cellulosic RINs for their entire fuel volume.[26] EPA believes this approach would create unnecessary administrative and regulatory burden. Instead of setting a minimum content for each individual feedstock, EPA is finalizing a single cellulosic content threshold. EPA has determined that most of the feedstocks listed in Table 1 to § 80.1426 for cellulosic biofuel pathways satisfy the 75% cellulosic content threshold adopted today. In

[24] Comment provided by Blue Source (EPA–HQ–OAR–2012–0401–0137).

[25] Comments provided by Smithfield Foods (EPA–HQ–OAR–2012–0401–0103) and the National Association of Clean Water Agencies (EPA–HQ–OAR–2012–0401–0178).

[26] Comments provided by AFPM/API (EPA–HQ–OAR–2012–0401–0128) and Chevron (EPA–HQ–OAR–2012–0401–0171).

addition, as described in section IV.A.5, EPA will assess the cellulosic content of future individual feedstocks as part of the lifecycle analysis process and determine whether the feedstock exceeds this threshold. Therefore, individual feedstocks will be analyzed to determine if they meet the minimum cellulosic content threshold, and different regulatory provisions apply depending on the result.

Several commenters stated that the emphasis should be placed on whether a feedstock meets the 60 percent reduction in greenhouse gas emissions relative to the baseline petroleum fuel they replace,[27] particularly where a feedstock is predominantly cellulosic.[28] One commenter also noted the agency should emphasize whether the feedstock has similar overall environmental qualities as a feedstock that is entirely cellulosic, such as the potential to avoid competition with food, the potential to require less fertilizer, pesticides, and irrigation, and the potential for a lower fossil fuel energy input requirement.[29] In response, EPA notes that it is required to implement the statutory requirements, and that the CAA is clear that a cellulosic biofuel must be both derived from cellulosic materials and meet the 60 percent GHG emission reduction threshold. Therefore, EPA is not free to establish regulations focusing exclusively on attainment of the 60% GHG reduction threshold, while ignoring the cellulosic content of the feedstock used to produce the fuel. In addition, EPA notes that in determining whether or not the fuel produced pursuant to a particular pathway satisfies the minimum 60 percent GHG reduction threshold for cellulosic biofuel, EPA does take into consideration a number of factors of concern to the commenter, including use of fertilizer and amount of fuels consumed in the production process. The Agency will continue to evaluate lifecycle emissions for feedstocks and require this reduction in greenhouse gas emissions for cellulosic pathways.

EPA also sought comment on a specified percentage approach, under which fuels produced from feedstocks listed in Table 1 to § 80.1426 would be eligible to generate cellulosic RINs for 85% of their volume, and the remaining 15% would be eligible to generate advanced RINs. This percentage was based on data that suggested that the average adjusted cellulosic content of the predominantly cellulosic feedstocks currently listed in Table 1 for cellulosic biofuel pathways was approximately 85%. Commenters generally opposed the specified percentage approach, asserting that it would create administrative burden to track two classes of RINs, that a partial loss of cellulosic RINs could hurt the financial viability of producers, and that there is the possibility of RIN generation errors.[30]

EPA has concluded that this approach would significantly increase the complexity of the program without providing additional environmental benefits. EPA believes the additional precision the method would provide is not justified in light of the administrative and regulatory burden associated with it, and that overall the cellulosic content threshold approach we are adopting today provides an appropriate balance of the competing considerations of precision and adopting a workable approach. Therefore, for the reasons described above, EPA is finalizing the content threshold approach.

b. Feedstocks With Lower Average Cellulosic Content Than Feedstocks Currently Listed in Table 1 to § 80.1426

In the proposal, EPA also invited comment on how to treat feedstocks that had lower average cellulosic content than the feedstocks currently listed in Table 1 to § 80.1426. Some commenters suggested using an approach with multiple thresholds, where fuel made from feedstocks that meet the highest cellulosic content threshold would receive 100% cellulosic RINs, and fuel made from feedstocks meeting lower thresholds would receive a fixed percentage of cellulosic RINs, with the remaining fuel receiving advanced RINs. Some comments suggested cellulosic RINs should not be generated for fuels with low cellulosic content.[31] Other commenters stated that the existing regulations in § 80.1426(f)(3) were sufficient to handle the allocation of RINs for the cellulosic and non-cellulosic portions of the finished fuel.[32] They noted that these regulations already provide a way to assign RINs for a mixture of fuel types with different D-codes. After evaluating these comments, EPA has concluded that the approach provided by the existing regulations in § 80.1426(f)(3) to allocating cellulosic and non-cellulosic RINs is preferable. This system is already established, and is designed to accurately apportion the finished fuel to account for cellulosic biofuel conversion, potentially allowing for a greater proportion of cellulosic RIN generation than would be allowed in establishing a series of thresholds with fixed percentages of cellulosic RIN generation.

B. Lifecycle Greenhouse Gas Emissions Analysis and Cellulosic Determinations for Pathways Using Biogas as a Feedstock

In the March 2010 RFS final rule, EPA established biogas as an advanced fuel type (D code of 5) when derived from landfills, sewage waste treatment plants, and manure digesters. Based on questions from companies, EPA proposed to: (1) Modify the existing biogas pathway to specify that compressed natural gas (CNG) or liquefied natural gas (LNG) is the fuel and biogas from landfills, waste treatment plants, and waste digesters is the feedstock; (2) allow fuels derived from landfill biogas to qualify for cellulosic RINs rather than just advanced RINs; (3) add a landfill biogas to renewable electricity pathway; and (4) add a Fischer-Tropsch landfill biogas pathway.

Based on comments and new data received, in this rule we are: (1) Finalizing the proposed change to make CNG and LNG the fuel and biogas from specified sources the feedstock; (2) expanding the cellulosic pathways to include biogas from landfills, municipal wastewater treatment facility digesters, agricultural digesters, and separated MSW digesters; (3) finalizing the proposed change to add an advanced pathway for fuels from waste digester biogas; and (4) expanding the renewable

[27] Comments provided by BP (EPA–HQ–OAR–2012–0401–0130), Iowa Corn Growers Association (EPA–HQ–OAR–2012–0401–0131), and NRDC (EPA–HQ–OAR–2012–0401–0136).

[28] Comments provided by BP (EPA–HQ–OAR–2012–0401–0130) and NRDC (EPA–HQ–OAR–2012–0401–0136).

[29] Comment provided by NRDC (EPA–HQ–OAR–2012–0401–0136).

[30] Comments provided by National Sorghum Producers (EPA–HQ–OAR–2012–0401–0065), the Renewable Fuels Association (EPA–HQ–OAR–2012–0401–0123), Weyerhaeuser (EPA–HQ–OAR–2012–0401–0140), NexSteppe (EPA–HQ–OAR–2012–0401–0153), the Independent Fuel Terminal Operators Association (EPA–HQ–OAR–2012–0401–0165) and Global Renewable Strategies and Consulting, LLC (EPA–HQ–OAR–2012–0401–0184). Some commenters expressed support for the specified percentage approach. See comments provided by the AFPM/API (EPA–HQ–OAR–2012–0401–0128), Phillips 66 (EPA–HQ–OAR–2012–0401–0102), Chevron (EPA–HQ–OAR–2012–0401–0171), and Camco (EPA–HQ–OAR–2012–0401–0183).

[31] Comments provided by NRDC (EPA–HQ–OAR–2012–0401–0136).

[32] Comments provided by the National Corn Growers Association (EPA–HQ–OAR–2012–0401–0071), Novozymes North America, Inc. (EPA–HQ–OAR–2012–0401–0088), and the Renewable Fuels Association (EPA–HQ–OAR–2012–0401–0123), the Iowa Corn Growers Association (EPA–HQ–OAR–2012–0401–0131), and Edeniq (EPA–HQ–OAR–2012–0401–0159).

electricity pathway to include biogas from landfills, wastewater treatment facility digesters, agricultural digesters, separated MSW digesters, and waste digesters. Due to time constraints, we are not finalizing a Fischer-Tropsch landfill biogas pathway at this time. However, we expect to address this pathway in a future action.

Our determinations regarding biogas derived renewable CNG, LNG and electricity are discussed more fully in the following sections. This section discusses:

- Changes Applicable to the Revised CNG/LNG Pathway from Biogas
- Determination of the Cellulosic Content of Biogenic Waste Derived Biogas
  - Landfill gas and MSW waste digester biogas as cellulosic
  - Municipal wastewater treatment facility digester biogas as cellulosic
  - Agricultural digester biogas as cellulosic
  - Biogas from Waste Digesters
- Consideration of Lifecycle GHG Emissions Associated With Biogas Pathways
  - Upstream GHG Analysis of Biogas as a Renewable Fuel Feedstock
  - Flaring Baseline Justification
  - Lifecycle GHG Analysis for Electricity From Biogas
- Alternative Biogas Options and Comments

The following section, ''Regulatory Amendments Related to Biogas'' will discuss additional clarifications and changes to the regulations associated with the biogas pathways.

1. Changes Applicable to the Revised CNG/LNG Pathway From Biogas

Prior to this rulemaking, an approved fuel pathway in Table 1 to § 80.1426(f)(1) allowed biogas from landfills, manure digesters or sewage treatment plants to qualify as an advanced biofuel. We received many requests about what fuel qualifies under this pathway, including what renewable fuel types qualify under the term ''biogas,'' and what are the eligible sources of biogas. In response, EPA proposed to make several changes to the regulations related to biogas.

EPA is now characterizing biogas as a transportation fuel feedstock and is amending the existing biogas pathway in Table 1 to § 80.1426 by changing the renewable fuel type in the pathway from ''biogas'' to ''renewable compressed natural gas (renewable CNG) and renewable liquefied natural gas (renewable LNG).'' EPA is also changing the feedstock type of ''landfills, manure digesters or sewage waste treatment plants'' to ''biogas from landfills, municipal wastewater treatment facility digesters, agricultural digesters, and separated MSW digesters'' for a pathway producing cellulosic biofuels. Finally, EPA is adding a new advanced biofuel pathway for fuels produced using ''biogas from waste digesters'' as the feedstock type.

In this final rule, we are changing the term ''sewage waste treatment plants'' to ''municipal wastewater treatment facility digesters'' since ''sewage waste treatment plants'' is not a commonly used term and to clarify that the digester is the source of the biogas. We are also defining an ''agricultural digester'' as an anaerobic digester that processes predominantly cellulosic materials including animal manure, crop residues, and/or separated yard waste.

The existing biogas pathway in Table 1 to § 80.1426 refers to ''biogas'' as the renewable fuel type and ''landfills, manure digesters and sewage waste treatment plants'' as the feedstock. Several companies raised questions about whether the term ''biogas'' in this pathway could refer to the unprocessed or raw gas from the landfills, manure digesters or sewage treatment plants, or processed ''biogas'' that has been upgraded and could be used directly for transportation fuel. Companies also asked about use of biogas as an ingredient in the production of transportation fuel, as an energy source used in the production of transportation fuel, and other fuel types that can be produced from the raw biogas either through a physical or chemical process (such as CNG, LNG, renewable electricity, renewable diesel, dimethyl ether or naphtha). These companies further inquired whether the various forms of biogas discussed above could qualify under this pathway and therefore be eligible for RIN generation under the RFS program.

The term ''biogas'' in this pathway is used broadly in the industry to refer to various raw and processed forms of the biogas from various sources. However, under the existing requirements in § 80.1426(f)(10) and (11), only biogas that is used for transportation fuel can qualify as renewable fuel for RIN generation under the RFS program. EPA recognizes that raw biogas cannot be used directly in the transportation sector and must be physically or chemically treated to generate a finished transportation fuel eligible for RIN generation. Raw biogas can be put through a physical process in which it is compressed or liquefied to produce CNG or LNG. Because these fuels can be used directly for transportation purposes, it seems appropriate to identify these products as ''fuels'' that are produced using biogas.

We are finalizing revisions to the definition of biogas and adding new definitions for renewable CNG, renewable LNG, and agricultural digester to § 80.1401. This rulemaking clarifies that biogas means a mixture of hydrocarbons that is a gas at 60 degrees Fahrenheit and 1 atmosphere of pressure that is produced through the anaerobic digestion of organic matter. We are also finalizing revisions to clarify renewable compressed natural gas (''renewable CNG'') means biogas or biogas-derived pipeline quality gas that is compressed for use as transportation fuel and that renewable liquefied natural gas (''renewable LNG'') means biogas or biogas-derived pipeline quality gas that goes through the process of liquefaction in which it is cooled below its boiling point. Finally, this rulemaking clarifies that agricultural digester means an anaerobic digester that processes predominantly cellulosic materials, including animal manure, crop residues, and/or separated yard waste.

These finalized definitions reflect comments we received that supported our changes to the ''biogas'' pathway as discussed above, namely changing fuel to CNG/LNG and adding a description of the applicable biogas feedstocks. The finalized definitions for CNG/LNG also reflect comments we received suggesting that we clarify whether CNG/LNG that is produced on-site and not sent through a pipeline would fall within the pathway. In order to clarify that CNG/LNG produced on-site and not sent through a pipeline would also qualify, the proposed definitions of renewable CNG and LNG were modified to indicate that either biogas or pipeline-quality gas can be compressed to make renewable CNG and LNG.

2. Determination of the Cellulosic Content of Biogenic Waste-Derived Biogas

In order for fuels produced from biogas as a feedstock to qualify for cellulosic RINs (D code of 3 or D code of 7), the renewable fuel must be derived predominantly from cellulosic materials and must meet a 60% GHG emissions reduction threshold, as described in the following sections.

EPA proposed to allow renewable fuel derived from landfill biogas to qualify as cellulosic biofuel and solicited comment on whether biogas from other sources should also be qualified as cellulosic biofuel. Based on new data and comments received during our public review process, EPA has determined that biogas generated by

landfills, municipal wastewater treatment facility digesters, agricultural digesters, and separated MSW digesters are predominantly cellulosic in origin, and that biogas derived from waste digesters processing non-cellulosic renewable biomass therefore qualifies as an advanced biofuel feedstock. Data supporting these determinations are discussed in more detail in an associated memo to the docket,[33] and the main findings are provided forthwith.

a. Landfill Biogas and MSW Digester Biogas as Cellulosic in Origin

In the June 2013 NPRM, EPA proposed to classify renewable fuels produced from landfill biogas as derived from cellulose, hemicellulose or lignin, and therefore eligible to generate cellulosic RINs (D code of 3 and D code of 7). EPA cited a 1989 study that concluded that not only was the average cellulosic content of the organic fraction of municipal solid waste (OFMSW) [34] approximately 90%, but that roughly 90% of the methane generated in landfills was derived from the cellulose and hemicellulose [35] portions of the OFMSW as the basis for this proposal.

Some commenters argued that MSW landfill gas was not cellulosic because a large portion of the waste disposed is food waste which contains some non-cellulosic components. We do not believe this affects our determination for several reasons. Our cellulosic content determination is based on an average mixture of MSW components that includes food waste. Since the average cellulosic content of the organic fraction of MSW is approximately 90%, EPA believes that organic matter in MSW landfills is predominantly cellulosic in origin. Furthermore, many of the non-cellulosic components of food waste are oxidized in the early stages of waste decomposition during the collection, handling and transportation and released as CO_2 instead of CH_4. Therefore, a greater proportion of the biogas produced from anaerobic digestion (and subsequently used as a transportation fuel) comes from the remaining cellulosic components.

Some commenters stated that only about 27% of MSW landfill gas can be considered to be derived from renewable biomass, and thus, any transportation fuel derived from the biogas cannot even be considered to be eligible for RIN generation. However, EPA determined in the March 2010 RFS rule that biogas from MSW landfills is derived from renewable biomass, namely separated yard and food wastes, and EPA did not propose to change that finding. Thus, this comment is not relevant to the current rulemaking.

EPA invited comment and data on the proposed approach to treat landfill biogas as being derived from cellulose, hemicellulose and lignin. Some commenters argued that landfill biogas should not be considered as cellulosic,[36] others supported considering landfill biogas as cellulosic,[37] and still others requested that EPA expand the proposed determination to include biogas derived from additional sources processing biogenic wastes as cellulosic.[38] Commenters that opposed considering landfill gas as cellulosic pointed to the EPA proposal that relied on a single study to justify this approach. This was not, in fact, the case, and EPA had reviewed, discussed and cited numerous studies to support this determination.[39] Moreover, subsequent to the June 2013 proposal, EPA updated its literature review and found additional peer reviewed studies that support our proposed assessment that biogas from landfills is predominantly derived from cellulosic components. The studies considered a broad spectrum of landfills, including studies comparing differences among landfill design, operating practices, regional influence, and typical waste loadings throughout the United States over more than two decades. Therefore, our determination that the biogas generated in landfills is predominantly derived from cellulose and hemicellulose is well supported.[40]

Since separated MSW digesters would use the same biogenic materials that are present in landfills, and generate biogas by the same anaerobic processes, a logical extension of the reasoning and data described above justifies treating the biogas generated by digesters processing separated MSW as cellulosic as well. Therefore, we have included biogas from separated MSW digesters as a feedstock in cellulosic biofuel pathway Q in Table 1 to § 80.1426.

b. Municipal Wastewater Treatment Facility Digester Biogas as Cellulosic

For purposes of this rule, the term ''municipal wastewater treatment facility digester'' means an anaerobic digester that processes the sludge, undissolved solids, and biosolids derived from municipal wastewater whether or not the facility is owned by a municipality. While there are substantial data characterizing the solids content of municipal wastewater, there are somewhat less data characterizing the composition of materials entering the digesters specifically. The average adjusted cellulosic content of the unprocessed wastewater solids—including primary sludge, activated sludge, and biosolids [41]—is greater than 75%.[42] For the purposes of calculating the average adjusted cellulosic content of materials entering the wastewater treatment facility digesters, we believe it is appropriate to use the subset of peer-

[33] ''Support for Classification of Biofuel Produced from Waste Derived Biogas as Cellulosic Biofuel and Summary of Lifecycle Analysis Assumptions and Calculations for Electricity Biofuel Produced from Waste Derived Biogas,'' which is available in docket EPA–HQ–OAR–2012–0401.

[34] The study specifies the ''volatile solids'' of the MSW to be 90% cellulosic. Volatile solids refer to organic compounds of plant or animal origin that have caloric value and are susceptible to bioconversion during anaerobic digestion.

[35] Barlaz, M.A., R.K. Ham, and D.M. Schaefer. 1989. Mass-balance analysis of anaerobically decomposed refuse. Journal of Environmental Engineering, 15(6) 1088–1102.

[36] See ''Comment submitted by Friends of the Earth, Sierra Club, Center for a Competitive Waste Industry'', docket number EPA–HQ–OAR–2012–0401–0164.

[37] See for example, ''Comment submitted by Kerry Kelly, Director, Federal Public & Regulatory Affairs, Waste Management (WM)'', docket number EPA–HQ–OAR–2012–0401–0112 and ''Comment submitted by Stewart T. Leeth, Assistant Vice President, Environmental and Corporate Affairs and Senior Counsel, Smithfield Foods, Inc.'' docket number EPA–HQ–OAR–2012–0401–0103.

[38] See ''Comment submitted by Stewart T. Leeth, Assistant Vice President, Environmental and Corporate Affairs and Senior Counsel, and Dennis Treacy, Executive Vice President and Chief Sustainability Officer, Smithfield Foods, Inc.'', docket number EPA–HQ–OAR–2012–0401–0111, and ''Comment submitted by Cynthia A. Finley, Director, Regulatory Affairs, National Association of Clean Water Agencies (NACWA)'', docket number EPA–HQ–OAR–2012–0401–0178.

[39] ''Support for Cellulosic Determination for Landfill Biogas and Summary of Lifecycle Analysis Assumptions and Calculations for Biofuels Produced from Landfill Biogas,'' which has been placed in docket EPA–HQ–OAR–2012–0401.

[40] Barlaz, M.A., R.K. Ham, and D.M. Schaefer. 1989. Mass-balance analysis of anaerobically decomposed refuse. Journal of Environmental Engineering, 15(6) 1088–1102. Mehta, R., Barlaz, M.A., Yazdani, R., Augenstein, D. Bryars, M. and Sinderson, L. 2002, ''Refuse Decomposition in the Presence and Absence of Leachate Recirculation,'' J. Environ. Eng., 128, 3, 228–236 Staley, B. F. and M. A. Barlaz, 2009, *Composition of Municipal Solid Waste in the U.S. and Implications for Carbon Sequestration and Methane Yield,''* J. Environ. Eng. 135, 10, 901–909.

Additional citations were offered in comments from *Waste Management.*

[41] Activated sludge and biosolids typically refer to aerobically treated residuals from the processing of municipal wastewater solids.

[42] Wang, Xue. 2008. Feasibility of Glucose Recovery from Municipal Sewage Sludges as Feedstocks Using Acid Hydrolysis. Masters Thesis Queen's University, Ontario, Canada. Champagne, P. & Li, C. 2009 ''Enzymatic hydrolysis of cellulosic municipal wastewater treatment process residuals as feedstocks for the recovery of simple sugars. Bioresource Technology. Vol 100 pp 5700—5706. See memo to the docket: ''Support for Classification of Biofuel Produced from Waste Derived Biogas as Cellulosic Biofuel and Summary of Lifecycle Analysis Assumptions and Calculations for Biofuels Produced from Waste Derived Biogas,'' available in docket EPA–HQ–OAR–2012–0401.

reviewed data that analyzes the activated sludge and biosolids.

The material that enters the digester typically includes the undissolved solids that are recovered from the primary clarification tank and the solids that are allowed to settle out in a secondary clarification tank following aerobic treatment. Therefore, the data for activated sludge and biosolids resembles the material that actually enters the digesters at wastewater treatment facilities. In addition, the data related to activated sludge and biosolids is more consistent and comparable, and therefore provides a more robust estimate of the cellulosic content. The average adjusted cellulosic content was obtained by dividing the reported cellulosic fraction by the convertible organic fraction (minus the percent organic nitrogen, which does not convert to methane). Based on these data, the activated sludge and biosolids are on average composed of 22% cellulose, 36% hemicellulose, and 21% lignin.[43] Therefore, we estimate that the material used to generate the biogas through anaerobic digestion from wastewater treatment facilities is, on average, greater than 75% cellulosic. These data and analyses are described in more detail in a memo to the docket.[44]

c. Agricultural Digester Gas as Cellulosic

In this rule we are defining ''agricultural digesters'' to be ''anaerobic digesters that process predominantly cellulosic materials, including animal manure, crop residues, and/or separated yard waste,'' and have identified biogas from such digesters as a feedstock for the production of cellulosic biofuel. Based on EPA's AgSTAR data, we have estimated that animal manure, crop residues and yard wastes represent over 90% of the materials being processed in agricultural digesters. As discussed in section IV.A, EPA has determined that crop residues and yard wastes are predominantly cellulosic. As to animal manure, we received in response to our proposal data indicating that animal manure is predominantly cellulosic.[45] Based on these data, animal manure is on average composed of 25% cellulose, 21% hemicellulose, and 17% lignin. When divided by the organic fraction (minus the percent organic nitrogen, which does not convert to methane), we estimate that the material used to generate the biogas through anaerobic digestion from agricultural digesters is, on average, greater than 75% cellulosic.[46] Therefore, in this rule we are including biogas from agricultural digesters in the cellulosic biofuel pathway in row Q of Table 1 to § 80.1426. Note that digesters that primarily process food wastes that cannot be demonstrated to be cellulosic in origin would fall in the general waste digester category discussed in the following section, and could be eligible to produce advanced biofuel instead of cellulosic biofuel.

d. Biogas From Waste Digesters

The current regulations identify biogas from manure digesters as an advanced biofuel. As described above, we have determined that animal manure is predominantly cellulosic, and therefore have determined that fuel made from biogas derived from agricultural digesters processing predominantly cellulosic feedstocks (such as animal manure, crop residues, and yard wastes) qualifies for cellulosic biofuel RINs. However, additional types of renewable biomass may be processed in anaerobic waste digesters. For example, non-manure animal wastes and separated food wastes containing predominantly starches and sugars may be processed in waste digesters that produce biogas. Based on our analyses of biogas from other sources of anaerobic decomposition, described in section IV.B.3, below, we are confident that fuel made from biogas from waste digesters will satisfy the 50% greenhouse gas reduction threshold for advanced biofuels. Therefore, we are including in Row T of Table 1 to § 80.1426, an advanced biofuel pathway for fuel made from biogas derived from waste digesters.

3. Consideration of Lifecycle GHG Emissions Associated With Biogas Pathways

Biogas, consisting primarily of methane and carbon dioxide (with trace amounts of other gases), is produced during the microbial mediated decomposition of organic wastes. In anaerobic environments with available organic material such as landfills, organic conversion to biogas proceeds slowly over decades producing large amounts of methane. While methane is a potent greenhouse gas, it is also a combustible gas and valuable feedstock for the production of other fuels. Biogas collection systems are currently used at landfills to recover and destroy methane by flaring or to recover methane for energy generation or fuel production. Further, the natural anaerobic decomposition of organic wastes occurring in landfills can be exploited and optimized in controlled systems (such as waste digesters) to convert organic wastes to biogas for energy generation or fuel production. In this section we will discuss our GHG analysis of fuels made from waste derived biogas.

a. Upstream GHG Analysis of Biogas as a Renewable Fuel or Fuel Feedstock

The March 2010 RFS final rule concluded that municipal solid waste has no agricultural or land use change GHG emissions associated with its production. In the NPRM, we proposed to add a new pathway to Table 1 to § 80.1426 that used biogas from landfills to produce renewable electricity, CNG or LNG as transportation fuels. In the NPRM, we proposed that no new renewable feedstock production modeling was required, and that no GHG emissions would be attributed to feedstock production, which was consistent with the analysis we had done for the landfill biogas pathway included in the March 2010 RFS final rule. In addition, as described in more detail below, EPA believes that the GHG emissions assumptions for biogas generated at MSW landfills applies to biogas from municipal wastewater treatment facility digesters, agricultural digesters, separated MSW digesters, and waste digesters.

We received several comments supporting this approach for landfills, and it is consistent with other Agency analysis conducted for the annual Inventory of US GHG Emissions and Sinks, which assumes that MSW poses no land use or carbon stock changes.[47]

[43] Wang, Xue. 2008. Feasibility of Glucose Recovery from Municipal Sewage Sludges as Feedstocks Using Acid Hydrolysis. Masters Thesis Queen's University, Ontario, Canada. Sun & Cheng. 2002. ''Hydrolysis of lignocellulosic materials for ethanol production: a review. Bioresource Technology. Vol 83 pp 1–11.

[44] Data available for pre-digested biosolids and methods for estimating the aggregate adjusted cellulosic content is presented in the memo to the docket: ''Support for Classification of Biofuel Produced from Waste Derived Biogas as Cellulosic Biofuel and Summary of Lifecycle Analysis Assumptions and Calculations for Biofuels Produced from Waste Derived Biogas,'' available in docket EPA–HQ–OAR–2012–0401.

[45] Chen, S., et. al., 2003, *Value Added Chemicals from Animal Manure.* Pacific Northwest Laboratory, PNNL—14495. December 2003.

[46] See memo to the docket: ''Support for Classification of Biofuel Produced from Waste Derived Biogas as Cellulosic Biofuel and Summary of Lifecycle Analysis Assumptions and Calculations for Biofuels Produced from Waste Derived Biogas,'' available in docket EPA–HQ–OAR–2012–0401.

[47] ''*Solid Waste Management and Greenhouse Gases: A Life-Cycle Assessment of Emissions and Sinks''*. Prepared by ICF for the U.S. Environmental

However, we also received comment opposing this approach on the grounds that it would incentivize landfilling over other more GHG-beneficial waste disposal methods.

Commenters did not provide new data or analysis that supported the assertion that allowing biogas-derived fuels from landfills to generate cellulosic rather than advanced RINs or adding new biogas-to-biofuel pathways would significantly reduce recycling and reuse rates. If waste management methods were impacted by use of biogas for transportation fuel, there could be indirect GHG emissions impacts. However, waste management policies are typically controlled by state and local governments, and there are many unique factors that influence these decisions. We have not seen any evidence or data to suggest that the RFS in general has had or will have a substantial impact on existing waste disposal practices across the U.S., and therefore we believe that there will not be significant GHG impacts associated with the biogas-based pathways adopted in this rule. In fact, MSW landfilling rates over the past 50 years have continuously decreased even as both recycling rates and biogas collection have increased significantly. Over the past 10 years as both the per capita and overall MSW generation rates have decreased slightly, the percentage of total trash diverted for recycling has increased.[48] Moreover, energy from waste technologies, such as fuels derived from landfill biogas, can be viewed as a form of waste reuse itself. Incentivizing the use of biogas for fuel production establishes biogas recovery as an operating parameter to be actively optimized—promoting technology that reduces fugitive emissions from landfills.

Other commenters argued that we should begin our lifecycle GHG analysis at the point of waste generation, in which case our comparison would be to an alternative disposal method like recycling of waste paper, composting, or anaerobic digestion. This approach is not being employed because, as mentioned previously, we do not believe that the biogas pathways adopted today will have a substantial impact on existing waste disposal methods, and therefore no significant GHG impacts from waste disposal changes are anticipated as a result of this rule.

EPA does not believe that allowing landfill biogas to generate cellulosic rather than advanced RINs will incentivize landfilling, and we are therefore not changing our assumptions regarding the upstream analysis of feedstocks as part of this final rule. However, we will reevaluate our lifecycle GHG baseline assumptions in subsequent rulemakings if new evidence and supporting data suggest that changes in the waste management system are occurring as a result of these policies.

b. Flaring Baseline Justification

Landfills currently treat their landfill gas, which is comprised of approximately 50% methane, in one of several ways. Municipal solid waste (MSW) landfills are required by EPA regulations to capture and control their biogas if they are designed to collect at least 2.5 million megagrams (Mg) and 2.5 million cubic meters of waste and emitting at least 50 Mg of non-methane organic compounds per year.[49] These large, regulated landfills represent a small percentage of all landfills by number but are responsible for the majority of biogas emissions from landfills. To comply with regulations, these landfills must at a minimum combust their biogas in a flare, converting the methane to carbon dioxide, a less potent GHG. They may also use it for other purposes, including to generate electricity, in which case the electricity produced may displace electricity from other, higher GHG-emitting sources (such as gas-fired power plants) once it enters the grid.[50] Many smaller, unregulated landfills do not collect their biogas, and this methane is ''vented'' to the atmosphere. Larger regulated landfills do collect the biogas and are assumed to have an average biogas collection efficiency of 75%.[51] In 2012, 14,089 Gg of methane was generated at all landfills (regulated and unregulated), of which 4,608 Gg (33%) was collected and combusted in gas-to-energy projects, 4,040 Gg (29%) was collected and flared, and the rest was either uncollected or collected and vented.[52]

For the landfill gas-to-electricity pathway, we proposed to use landfills that flare their biogas as providing the baseline GHG emissions for use in comparison to scenarios involving production of electricity from the landfill biogas. We chose this baseline because these landfills are the ones most likely to convert to gas-to-energy projects, since they already have gas collection systems in place and are relatively larger landfills producing higher quantities of biogas. Small unregulated landfills might be unable to generate enough biogas to justify the expense of collecting it for conversion to renewable fuels. However, if such small landfills were to capture and use their biogas in transportation fuels, there would be a significantly greater reduction in GHG emissions than would be occasioned by the shift from a flaring landfill to a gas-to-energy project, since a flaring system represents a significant improvement in GHG emissions over a landfill that simply vents its methane. Therefore, if the shift from a flaring landfill to a gas-to-energy project results in a 50% reduction in GHG emissions, the shift of a venting landfill to a gas-to-energy project would result in GHG reductions substantially larger than 50%. Since landfills that currently have gas-to-energy projects in place at one point either replaced flaring with a gas-to-energy project or installed a gas-to-energy project as an alternative to the minimal compliance route of flaring, we proposed to treat the emissions from these landfills compared to the same flaring baseline. We show lifecycle results calculated using alternative baselines and discuss our choice of baseline in more depth in a memo to the docket.[53] We received comments in support of our flaring baseline approach. We did not receive any comments that justified revising this baseline for the pathway in Table 1,

Protection Agency (EPA) Office of Solid Waste, EPA530–R–06–004, September 2006.

[48] ''*Municipal Solid Waste (MSW) in the United States: Fact and Figures''*. EPA's Annual Waste Trends Report. 2012 Facts and Figures Facts Sheet; *http://www.epa.gov/osw/nonhaz/municipal/pubs/2012_msw_fs.pdf.*

[49] Standards of Performance for New Stationary Sources and Guidelines for Control of Existing Sources: Municipal Solid Waste Landfills, 61 FR 9905, **Federal Register** Volume 61, Issue 49 (March 12, 1996).

[50] Some facilities also use the biogas directly in boilers and other applications or purify the biogas to create CNG or LNG or inject it directly into natural gas pipelines.

[51] Environmental Protection Agency. 2012. Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2010, Annex 3: Methodological Descriptions for Additional Source or Sink Categories. *http://epa.gov/climatechange/emissions/usinventoryreport.html.* As of December 2012, landfills produced 1913 MW of electricity based on figures from LMOP. This electricity would be almost entirely sold for use on the grid. From *http://www.epa.gov/lmop/projects-candidates/index.html.* Environmental Protection Agency, Landfill Methane Outreach Program. 2010. LFG Energy Project Development Handbook: Chapter 2. Landfill Gas Modeling. *http://epa.gov/lmop/publications-tools/handbook.html.*

[52] National Greenhouse Gas Emissions Data. 2011. Chapter 8: Waste. *http://epa.gov/climatechange/Downloads/ghgemissions/US-GHG-Inventory-2013-Chapter-8-Waste.pdf.*

[53] ''Support for Classification of Biofuel Produced from Waste Derived Biogas as Cellulosic Biofuel and Summary of Lifecycle Analysis Assumptions and Calculations for Electricity Biofuel Produced from Waste Derived Biogas.'' Available in docket EPA–HQ–OAR–2012–0401.

therefore EPA is finalizing flaring as our baseline as proposed. We received comment on the use of alternative baselines for specific projects that we discuss below.

Other commenters addressed the case of a landfill that is already generating renewable electricity from landfill gas. The commenters stated that with the increasing availability of plug-in hybrid electric vehicles (PHEVs) and electric vehicles (EVs), it is likely that at least some of the electricity that is currently being generated by these landfills is going to charge these vehicles. The commenter argued that if the landfill now signs contracts with these users, there will be no change in GHG emissions, and fuel from this landfill biogas will not achieve a 60% GHG reduction as required for cellulosic biofuels. Although EPA considered the possibility of differentiating between existing and new biogas projects,[54] we believe that such an approach would inappropriately punish ''early actors'' that have previously made the decision to install gas-to-energy equipment, either to replace flaring or as an alternative to installing flares. The fact that these facilities made the upgrade to gas-to-energy production prior to the availability of an RFS incentive to do so should not disqualify them. These facilities are already leading performers, and their fuel should be credited with the GHG reductions occasioned by the move away from the flaring alternative even if that move happened in the past. This approach is consistent with how we have treated the early implementation of advanced technologies for all biofuels producers in the past.

We also believe that it is appropriate to use a flaring baseline when considering emissions related to biogas production from municipal wastewater treatment facility digesters, agricultural digesters, separated MSW digesters, and waste digesters. Similar to landfills, biogas from these sources could be vented, flared or used for beneficial purposes. According to the American Biogas Council Web site, of the 1,500 municipal wastewater treatment facility digesters that produce biogas, about 250 use the biogas; for the other 1,250, the biogas is flared. For agricultural digesters the alternative to beneficial use of the biogas is typically that the methane would have been emitted. We believe a similar situation exists with respect to separated MSW, and therefore we use that same flaring baseline for both of these systems. In fact for most waste digesters, the alternative is that the waste would have gone to a landfill resulting in the same baseline. Furthermore, wastewater treatment facilities that don't use digester biogas for process energy, fuel production, or electrical generation typically flare the unused biogas. Assuming that the biogas is flared generally provides a conservative baseline. If sources that are using flaring will achieve a 60% GHG reduction when converting to electricity production, sources that are venting their methane will certainly do so as well.

c. Lifecycle GHG Analysis for Electricity From Biogas

The previous section discussed the baseline EPA has selected for use in comparison to the biogas pathways under consideration.[55] This section discusses the lifecycle GHG emissions analyses of the pathways adopted today, which are then compared to the baseline to determine if the requisite GHG reductions are achieved.

As part of the proposed rule, EPA prepared a proposed assessment of the lifecycle GHG emissions of renewable electricity produced from landfill biogas. In doing so, we examined two main factors. The first involved determining by how much emissions at a landfill employing flaring would change upon installation of a gas-to-energy project. For this calculation, we used emission factors from the GREET model.[56] The second involved calculation of the decrease in GHG emissions caused by powering the gas blowers already in use with biogas-derived electricity produced on-site rather than grid electricity upon installation of a gas-to-energy project at the landfill. This calculation used data from the EPA Landfill Methane Outreach Project (LMOP).[57] For this analysis, we calculated how much electricity could be generated and how much could be delivered off-site to the consumer including consideration of on-site parasitic losses and on-site use. We used values from LMOP to provide estimates of the relative shares of different types of engines or turbines, the electricity generation efficiency, parasitic losses, energy use in collecting and preparing the biogas, and a value from the U.S. Energy Information Agency to estimate distribution losses. Values used are discussed in more detail in a memo to the docket.[58]

We calculated GHG emissions in two ways, per mmBtu electricity and per mmBtu fuel equivalent which accounted for the drivetrain efficiency of electric vehicles. In both cases we found that renewable electricity produced from landfill gas meets the 60% GHG emission reduction threshold required by the CAA, and thus qualifies as a cellulosic biofuel. Compared with the gasoline that it would replace, these projects would be accompanied by an 87% reduction in GHG emissions when normalized per mmBtu electricity. Accounting for the improved efficiency of EV drivetrains increases the GHG emissions reductions to 96%.

We did not receive any comment on our lifecycle calculations and are therefore finalizing our determination that renewable electricity produced onsite from landfill gas meets the 60% reduction in GHG emissions required by the CAA. This determination also applies to a pathway where the electricity is generated off-site. The main differences are removal of the credit associated with using biogas electricity in on-site blowers, and adding emissions associated with scrubbing the gas to pipeline quality, shipping it via pipeline, and removing it from the pipeline to make electricity. Removing the credit associated with use of biogas-derived electricity for onsite blowers still results in a 75% reduction in GHG emissions when normalized per mmBtu electricity, and the emissions associated with other aspects of a pathway involving off-site electricity generation (e.g., scrubbing the gas to pipeline quality, shipping it via pipeline, removing it to make electricity) are not expected to change the result significantly.

We believe that GHG emissions related to electricity produced with biogas from municipal wastewater treatment facility digesters, agricultural

[54] ''Support for Classification of Biofuel Produced from Waste Derived Biogas as Cellulosic Biofuel and Summary of Lifecycle Analysis Assumptions and Calculations for Electricity Biofuel Produced from Waste Derived Biogas,'' which is available in docket EPA–HQ–OAR–2012–0401.

[55] The discussion here is limited to the new biogas to electricity pathway adopted today. Lifecycle greenhouse gas emission reductions required for the new cellulosic CNG and LNG pathways are 60% as compared to a 2005 fossil fuel baseline (50% reductions were previously required for CNG and LNG for the advanced pathway). The CNG and LNG lifecycle assessment for the 60% reduction requirement is discussed in the memo placed in the docket: ''Support for Classification of Biofuel Produced from Waste Derived Biogas as Cellulosic Biofuel and Summary of Lifecycle Analysis Assumptions and Calculations for Biofuels Produced from Waste Derived Biogas,'' available in docket EPA–HQ–OAR–2012–0401.

[56] Argonne National Laboratory (2011) Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation Model (GREET), Version 1 2011, *http://greet.es.anl.gov/.*

[57] EPA LMOP Data.

[58] ''Support for Classification of Biofuel Produced from Waste Derived Biogas as Cellulosic Biofuel and Summary of Lifecycle Analysis Assumptions and Calculations for Electricity Biofuel Produced from Waste Derived Biogas.'' Available in docket EPA–HQ–OAR–2012–0401.

digesters, separated MSW digesters, and waste digesters would be similar to those for landfill biogas production. The analysis for landfill biogas to electricity considered two main components: An increase in emissions due to converting from flaring to electricity generation and a credit associated with reduced grid electricity purchased to run blowers. The change in emissions due to converting from flaring to electricity generation that we assumed for landfill biogas can be considered the same for other sources of biogas. In all cases the emissions are based on the properties of the biogas itself, and its combustion products, which are independent of the biogas source. For other biogas sources there may be less need for purchased grid electricity to run blowers since other biogas sources are generally less distributed than gas collection at landfills. However, even if the credit associated with the reduction in purchased grid electricity for blowers is not considered for municipal wastewater treatment facility digesters, agricultural digesters, separated MSW digesters and waste digesters, compared with the gasoline baseline GHG emissions of 98 kg CO_2-eq/mmBtu, these projects would still be accompanied by a 75% reduction in GHG emissions when normalized per mmBtu electricity. The calculated reduction would be even greater if we accounted for the improved efficiency of EV drivetrains. Therefore, we have determined that pathways involving electricity production from biogas derived from these other sources also meet the 60% lifecycle GHG reduction threshold and can be qualified as cellulosic biofuel (assuming all other definitional and regulatory requirements are satisfied). It is important to note that RINs may only be generated for electricity from biogas that can be tracked to use in the transportation sector, such as by an electric vehicle.

4. Alternative Biogas Options and Comments

a. Alternative Baseline Approaches

We received comments in support of our flaring baseline approach. However, we also received several comments arguing for alternative approaches. Several commenters wanted EPA to allow parties to use a non-flaring baseline where it can be shown that the landfill providing biogas is not required to have a flare or other methane controls. For the basis of our biogas pathways in Table 1, EPA is not changing the baseline comparison of flaring for the reasons stated above, that on average it is the baseline landfill condition that would be replaced. In addition, EPA had determined that the biogas to energy pathways evaluated are all calculated to achieve at least a 60% reduction in GHG emissions required by the CAA when a change from landfill flaring is assumed. Assuming venting instead of flaring as a baseline landfill condition would improve the calculated benefits of the projects, but would not change the applicable RFS GHG threshold determination. Accordingly, there is no purpose served by these comments for purposes of today's rule.

b. Additional Comments on Lifecycle Analysis for Renewable Electricity

In addition to the comments discussed above, we also received comment suggesting that we include electricity from biomass sources such as woody biomass as a pathway in Table 1 to § 80.1426. However, evaluation of the lifecycle GHG emissions associated with generating electricity from woody biomass or other biomass sources would involve substantially different considerations from our analysis of electricity production from biogas sources, and is beyond the scope of this rule. Therefore EPA is not finalizing an electricity pathway from other types of biomass at this time. We also received comments on adding pathways for biogas to transportation fuels other than CNG/LNG and electricity. These other fuel types included dimethyl ether (DME) and hydrogen (H). However, assessing emissions associated with these production processes is also beyond the scope of this rule.

We received comment seeking clarification of whether electricity from landfill biogas or other approved biogas sources that was used in trains would qualify for RIN generation. EPA has determined that electricity used in trains is not a ''transportation fuel'' as defined in the Clean Air Act. Electricity from RFS-approved biogas sources that is used in trains does not ''replace or reduce the use of fossil fuel present in transportation fuel'', and therefore does not meet the statutory definition of a ''renewable fuel'' eligible for RIN generation in the RFS program.

Commenters also asked whether electricity from landfill biogas or other approved biogas sources that was used to compress natural gas would be eligible for RIN generation, if the natural gas was used for transportation purposes. EPA has determined that electricity used to compress natural gas does not qualify for RIN generation, since the electricity will not reduce the amount of fossil fuel present in the natural gas, which is the transportation fuel in this situation.

C. Regulatory Amendments Related to Biogas

Prior to this rulemaking, an approved fuel pathway in Table 1 to § 80.1426 allowed biogas from landfills, manure digesters or sewage waste treatment plants to qualify as an advanced biofuel. We have received questions related to some of the details of this pathway that are also relevant to the biogas-related pathways approved today. The questions include the following: (1) What company along the production chain of biogas from generation to end user is considered the producer that qualifies to register under this pathway and generate RINs, and (2) what are the contract requirements to track the biogas from generation to end use.

We proposed revising and adding new documentation, registration, reporting and recordkeeping requirements at locations along the production chain from biogas generation to finished transportation fuel use. We also proposed to specify which company along the production chain is considered the ''producer'' and eligible to generate RINs under the RFS program. In the following sections, we will detail the changes being finalized.

1. Changes Applicable to Renewable Electricity From Biogas Sources

In the NPRM, EPA requested comment on a number of potential changes intended to clarify the process for generating RINs for renewable electricity. We received a number of comments on these proposed changes, but have decided that in general the existing regulations are sufficient for present purposes and only minor clarifications are warranted at this time. To the extent that these modifications do not resolve all questions, EPA's intent is to address them through a combination of guidance documents and future rulemaking.

a. Registration and RIN Generation Requirements

Section 80.1426 paragraphs (f)(10) and (11) describe the requirements for generating RINs for renewable electricity and biogas which are either introduced into a dedicated renewable distribution system (§ 80.1426(f)(10)) or introduced into a commercial distribution system (§ 80.1426(f)(11)). EPA requested comment on the provisions and suggestions for alternative requirements. Several commenters provided background information related to actual renewable electricity generation and transportation use to aid in the development of more detailed provisions. This information

included specific detail on how individual companies are currently using biogas to generate electricity for transportation purposes, and what these companies are doing to comply with state regulatory programs. These comments illustrated a number of significant challenges faced by parties wishing to generate biogas electricity RINs under the RFS program.

Most commenters agreed that the electricity distribution system is complex, and that detailed and clear regulatory requirements specific to renewable electricity are needed. EPA agrees that the electricity generation system is complex, and EPA intends to take more time to evaluate the options and their implications. We believe that the regulatory changes made in this final rulemaking to § 80.1426 paragraphs (f)(10) and (f)(11) should help address some of those challenges. EPA and stakeholders will benefit from additional experience in implementing the current provisions before adopting significant modifications.

b. Distribution and Tracking Requirements

Tracking and verifying the production and use of the renewable electricity are of particular concern. Each state regulates electricity individually and so there is a wide variety of systems and requirements that must be accounted for in establishing a robust system for electricity accounting. In addition, several states have renewable portfolio standards and ''renewable electricity [59] credit'' (REC) programs. Further, most states do not allow private electricity generators to sell electricity directly to consumers. Therefore we cannot rely solely on written contracts for tracking of renewable electricity to transportation use. An alternative tracking and verification system must be established. The alternative adopted in this final rule is described in the next section.

It was suggested by commenters that EPA leverage existing state renewable electricity portfolio programs to track and validate RINs generated for RFS-qualified renewable electricity. These programs rely on defined environmental attributes which can be owned and transferred independently of the actual electricity. Ownership of these environmental attributes allows regulated parties to demonstrate compliance with the renewable electricity portfolio programs. Given the variety of renewable electricity programs managed by a multitude of states, this does not seem workable for the RFS program. In addition, EPA does not intend for the RFS to interfere with existing state programs. Therefore we have made the decision to match generation to use, and not require the purchase or definition of related environmental attributes. This does not preclude RIN generators from participating in state renewable electricity programs or from using that information to support their RFS registration and reporting documentation.

2. Regulatory Changes Applicable to All Biogas Related Pathways

As discussed above, we have had many inquiries related to the ''biogas'' pathway, specifically regarding contract requirements for tracking the biogas through the distribution system to end use, and regarding what company along the production chain is considered the ''producer'' and eligible to generate RINs under the RFS program. In this rulemaking, we have revised the documentation requirements slightly, to better track the biogas as it moves into and out of the distribution system and to document the final use as a transportation fuel. Provisions related to registration, reporting and recordkeeping were revised as well. These provisions allow for the use of signed affidavits, when written contracts are not available, to prove the use or sale of renewable electricity and renewable CNG/LNG for transportation purposes. It is assumed that these affidavits would be signed by fleet managers or vehicle operators, verifying the use of the renewable transportation fuel. These affidavits would then be matched, by the registered fuel producer, to the delivery or sale of an equivalent amount of qualifying renewable electricity or renewable CNG/LNG. While it is impossible to track the specific molecules or electrons, it must be theoretically feasible that the fuel produced can reach the vehicle using it. Examples of connected grid systems include, but are not limited to, commercial natural gas distribution systems, dedicated private fuel distribution systems, or transmission grids as defined by the North American Electrical Reliability Corporation (NERC) regions. These amended requirements are applicable to all pathways related to biogas.

We proposed that the ''producer'' of renewable CNG/LNG be the company that compresses or liquefies the gas and distributes the CNG/LNG for transportation fuel, and for renewable electricity, we proposed that the ''producer'' would be the company that distributes the electricity for use as transportation fuel. Numerous commenters indicated that limiting RIN generation to the CNG/LNG or electricity distributor would revoke current RIN generation ability from those who have invested significant resources in developing biogas projects. Some commenters also stated that the company first injecting the pipeline quality biogas into the grid would be intimately familiar with the responsibilities in tracking distribution, and should be eligible to act as the RIN generator. Given the complexities of the situation involving the production, transportation and use of biogas-derived fuels, we are not finalizing the definition of ''producer'' for renewable CNG/LNG and renewable electricity. EPA believes a more appropriate approach at this time is to examine registrations on a case by case basis in the short term, and to learn from this experience prior to issuing any final rule addressing the subject.

The processing and distribution train from raw biogas to final transportation fuel use can be complex, and may include many companies and processing steps from the point when the raw biogas is withdrawn from its source (such as landfills, waste digesters, wastewater treatment plants), to where it is processed, converted into biofuel and distributed to consumers. In some cases the fuel may be cleaned at a biogas scrubbing facility to pipeline quality specifications for distribution, and then withdrawn from the commercial pipeline to be processed further at another production facility into renewable CNG/LNG or renewable electricity. The company registering to generate RINs is responsible for providing all the required information and supporting documentation in their registration, and for satisfying reporting and recordkeeping requirements to track and verify the movement of gas from point of extraction of the raw biogas from its original source, through all the processing steps and distribution steps in between, to the last step where the actual fuel is used for transportation purposes. In the engineering review report required for registration, the producer must include documentation that the professional engineer performed site visits at each biogas production facility covered by the producer's registration that is located prior to the point of injection into a common carrier pipeline, or in the case of on-site distribution, prior to the point of

[59] When referring to various state ''renewable electricity'' programs in this preamble, we are using that term as defined in the state programs, and do not intend to suggest that the electricity in question necessarily satisfies the RFS regulatory definition of ''renewable electricity.''

distribution for transportation usage. The third-party engineer must also review and verify all related supporting documents such as design documents, calculations, regulatory permits, contracts and affidavits between facilities that track the raw biogas from the point of withdrawal from its source, the various injection/withdraw points into the distribution pipeline, the various production facilities, and the final step for use as transportation fuel. For purposes of biogas-related pathways, EPA does not interpret its regulations as specifying where the producer must lie on the value chain. EPA will evaluate the situation on a case by case basis through the registration process; any company that is registered to generate RINs must be in a position to oversee the entire process and provide all necessary documentation. These requirements will help ensure that the company registering to generate RINs will only generate RINs for fuel that is fully compliant with all regulatory requirements.

The registration, reporting and recordkeeping requirements are in §§ 80.1426(f), 80.1450, and 80.1454 in this rulemaking. The structure of § 80.1426(f) paragraphs (10) and (11) was changed to more clearly address RIN generation requirements for electricity and CNG/LNG derived from biogas. Paragraph (10) lists requirements for fuels that are not introduced into a commercial distribution system; subparagraph (i) addresses electricity requirements and subparagraph (ii) addresses CNG/LNG requirements. Subparagraph (iii) is an additional requirement for producers co-firing a combination of fuels to generate electricity. Similarly, paragraph (11) lists requirements for fuels that are introduced into a commercial distribution system, with the same organization as paragraph (10).

Comments to the NPRM raised the concern that contracts are not always feasible between the parties producing and using the fuel. In some cases, smart metering is available to provide very detailed documentation of fuel distribution and use. Therefore EPA has added signed affidavits and an option for other EPA-approved documentation to demonstrate the transfer of qualifying fuel used for transportation. EPA will provide guidance on other documentation that may be considered acceptable. The changes regarding the documentation requirements for distribution and use of the biogas, electricity, and CNG/LNG is located in § 80.1426 and § 80.1454.

D. Clarification of the Definition of ''Crop Residue'' and Clarification of Feedstocks That EPA Considers Crop Residues

1. Clarification of the Definition of ''Crop Residue''

In today's FRM, EPA is amending ''crop residue'' in the RFS regulations to more clearly describe the characteristics of products that should fall within the definition.[60] The final amendments are identical to those proposed. EPA proposed in the NPRM to include this amendment to provide more detailed guidance regarding the types of feedstocks that EPA considers crop residues. In our preexisting regulations, ''crop residue'' ''is the biomass left over from the harvesting or processing of planted crops from existing agricultural land and any biomass removed from existing agricultural land that facilitates crop management (including biomass removed from such lands in relation to invasive species control or fire management), whether or not the biomass includes any portion of a crop or crop plant.'' [61]

In the NPRM, we proposed to amend the definition to specify that biomass is considered crop residue only if the use of that biomass for the production of renewable fuel has no significant impact on demand for the feedstock crop, products produced from that feedstock crop, and all substitutes for the crop and its products including the residue, nor any other impact that would result in a significant increase in direct or indirect GHG emissions. We also noted that crop residue must come from crop production or processing for some other primary purpose (e.g., refined sugar, corn starch ethanol) or be removed to facilitate crop management, such that the crop residue is not the reason the crop was planted. The residue must also come from existing agricultural land, the exact definition of which is laid out in our current regulations that define ''renewable biomass.'' [62] We stated further that the residue should generally not have a significant market in its own right, to the extent that removing it from that market to produce biofuels instead will result in increased GHG emissions.

We sought comment on this revision to the crop residue definition, specifically inviting comments regarding what ought to constitute a ''significant'' increase or decrease in GHG emissions in the context of this definition.

We received significant comment supporting and opposing this change. At least one commenter who supported the change also stated that EPA should amend the definition of crop residues to more explicitly exclude non-cellulosic components of crop residues.[63] We address the question of the cellulosic content of feedstocks in section IV.A. of this rulemaking. Information available to EPA indicates that crop residue as a class more than satisfies the 75% cellulosic content threshold we have adopted today to identify feedstocks which are eligible to generate cellulosic biofuel RINs for the entire produced volume.[64] For this reason, we are not modifying the definition as suggested by the commenter.

Those opposed to the proposed change were uniformly clear that they supported the crop residue pathway in general.[65] Opposition stemmed from concerns that our proposed clarification would be overly limiting and would exclude feedstocks that rightfully ought to be considered crop residues under the RFS. Several commenters stated that very few products have no market value and that most will find some sort of beneficial use. These commenters expressed concern over our statement in the preamble of the NPRM that, in order to meet the definition of crop residue, a crop product must generally not have a significant market in its own right. In their estimation, the fact that most crop products have a non-zero market value might cause them to be disqualified from the crop residue pathway.[66] EPA acknowledges that many crop residues have some non-zero market value. We also acknowledge that most could find some sort of beneficial use, albeit a low value use in many cases. This in turn may have some non-zero impact on the total revenue a farmer receives for a crop. However, we do not believe that a crop product must necessarily be completely useless in order to qualify under the crop residue pathway. Rather, as indicated in our amendment to the definition of crop residue and our statements in the NPRM preamble, the use of the crop product to produce renewable fuel should not significantly

[60] *See* § 80.1401.

[61] Ibid.

[62] Ibid.

[63] Comments submitted by AFPM/API (EPA–HQ–OAR–2012–0401–0128).

[64] See Memorandum to the Docket, ''Cellulosic Content of Various Feedstocks—2014 Update.'' Available in docket EPA–HQ–OAR–2012–0401.

[65] See, for example, comments submitted by the Renewable Fuels Association, (EPA–HQ–OAR–2012–0401–0123), the National Corn Growers Association (EPA–HQ–OAR–2012–0401–0065), and Growth Energy (EPA–HQ–OAR–2012–0401–0173).

[66] Here as well, several commenters expressed similar opinions. See, for example, comments submitted by the Renewable Fuels Association, (EPA–HQ–OAR–2012–0401–0123).

impact demand for the feedstock crop and associated products and should not lead to a significant increase in GHG emissions. It is our judgment that a crop product need not be completely devoid of value to meet these criteria, though there should be a notable difference in the value of the primary product and the value of the residue.

Other commenters stated that the use of a crop residue as biofuel feedstock gives it value and that this use itself may increase the total value of the primary crop.[67] Several commenters expressed concern that this approach may create a chilling effect on investment in crop residue-based fuels.[68] EPA acknowledges the possibility that, if used as biofuel feedstock in large enough quantities, demand for a crop product may begin to affect the value of the primary crop. EPA noted in the NPRM that, if significant facts change over time, it is possible that EPA would modify its assessment regarding whether particular crop products meet the definition of crop residue. However, if EPA were to revise our assumptions or analysis concerning the qualification of certain crop products as crop residue, this change would be done after public notice and an opportunity for comment. Therefore, industry would have adequate opportunity to provide data to EPA prior to any potential changes to our interpretation regarding any of the feedstocks listed in Table IV.D.3–1. It is important to note that even if a particular feedstock evolved to the point where it had a significant market as a commodity and EPA were required to revisit the lifecycle GHG emissions analysis, this feedstock would most likely still meet the definition of renewable biomass. EPA would therefore be able to establish a new pathway for the feedstock upon completion of a lifecycle GHG analysis, even if the feedstock no longer fit under the crop residue pathway. In sum, we do not believe that the possibility of EPA reconsidering past LCA determinations, including those for crop residue pathways, should create any undue uncertainty for the private sector, nor that the possibility of reconsideration will materially affect production of cellulosic renewable fuels under pathways allowing for the use of crop residue as a feedstock.

Most commenters who opposed the change also argued that the key consideration ought to be whether the residue meets the 60 percent GHG reduction threshold for establishing a pathway to generate RINs with a D code of 3 and/or a D code of 7 and that, as long as a crop product meets this threshold, it ought to be considered a crop residue.[69] EPA believes that the term crop residue should be defined in a manner that ensures that materials within the definition satisfy the 60 percent GHG reduction threshold. This is one of the reasons why EPA is finalizing the proposed amended definition. Materials that do not meet the definition of crop residue, and do not qualify as other feedstocks listed in Table 1, may be independently evaluated to determine if they satisfy the 60 percent GHG reduction threshold, or other thresholds applicable to other types of biofuels. Parties questioning whether an agricultural product meets the current definition of crop residue must determine if the product is ''left over.'' Our proposed and final definitional change is intended to clarify what this means.

However, the current regulations do not provide stakeholders with much guidance regarding what EPA considers to be the meaning of ''left over.'' The current definition has created significant confusion and uncertainty among stakeholders. Our goal in clarifying the definition of crop residue is to more transparently define the criteria that must be met for a feedstock to qualify under the existing crop residue pathway. Stakeholders who are considering whether or not to use a given feedstock will be able to consider these criteria, rather than relying on the current regulatory text that does not specify the meaning of ''left over.''

Those opposed to the amendment to the definition of crop residue also generally argued that the word ''significant'' was used vaguely in our proposed clarification, and that this might create undue hurdles for producers seeking to use low-GHG crop products under the crop residue pathway.[70] As stated previously, EPA sought comment on the proposed change and specifically regarding what ought to constitute a ''significant'' change in GHG emissions. Commenters who opposed the proposed clarification declined to offer alternative interpretations of the terms ''left over'' and ''significant.'' However, several of these commenters did state that EPA's proposal did not sufficiently describe what might constitute a ''significant increase,'' a ''significant market,'' or a ''significant impact.'' [71]

It is true that EPA did not provide specific criteria for meeting these significance thresholds. However, in our NPRM discussion concerning corn kernel fiber, we discussed this question contextually. In that discussion, we described why we believe that corn kernel fiber would not cause a significant increase in demand for corn, why we believe that corn kernel fiber does not have a significant market in its own right, and why its removal from distillers' grains to produce biofuel will not have a significant impact on direct or indirect GHG emissions. Stakeholders who wish to better understand how to evaluate whether other feedstocks meet the definition of crop residue should consult that discussion and the comparable discussion in section IV.D.2 of this preamble.

Few commenters offered opinions regarding what might constitute a ''significant market'' for a crop product. However, comments submitted by the Iogen Corporation did provide one potential framework for understanding when a crop product might be considered to have a significant market. In their comments, Iogen stated that ''EPA should not consider potential for significant crop shifting unless the farmer revenue per acre for raw unprocessed crop residue (i.e., before fees for collection, baling, stacking, transport, etc.) is more than 15 percent of the grain crop revenue per acre. We believe the volatility of the grain crop revenues is much larger than 15 percent of the grain price, and that the incremental revenue will not affect crop planting decisions.'' [72]

EPA has not utilized this methodology to identify which crop products we consider crop residues for the purposes of this final rulemaking. We acknowledge that this type of methodology could potentially be useful for evaluating whether future feedstocks meet our definition of crop residue, including non-grain crops. While we have not performed sufficient analysis to determine whether it is appropriate to adopt such an approach today, we may

[67] See comments submitted by the National Corn Growers Association (EPA–HQ–OAR–2012–0401–0065) and the Iowa Corn Growers Association (EPA–HQ–OAR–2012–0401–0124), among others.

[68] See, for example, comments submitted by the American Coalition for Ethanol (EPA–HQ–OAR–2012–0401–0147).

[69] See, for example, comments submitted by Novozymes North America, Inc. (EPA–HQ–OAR–2012–0401–0088) and Growth Energy (EPA–HQ–OAR–2012–0401–0173).

[70] See, for example, comments submitted by the National Biodiesel Board (EPA–HQ–OAR–2012–0401–0166) and Novozymes North America Inc. (EPA–HQ–OAR–2012–0401–0088).

[71] See, for example, comments submitted by the National Biodiesel Board (EPA–HQ–OAR–2012–0401–0166) and Novozymes North America Inc. (EPA–HQ–OAR–2012–0401–0088).

[72] Comments submitted by Iogen Corporation (EPA–HQ–OAR–2012–0401–0135).

reconsider it in the future. Regardless, we do believe that it provides a useful consideration for stakeholders.

In Table IV.D.3–1 of this preamble, EPA identifies several crop products that we consider crop residues. In addition, we have provided greater transparency to stakeholders regarding the criteria for qualifying as a crop residue under the RFS in this preamble and in the clarified definition of crop residue. As a general principle, if a product meets the regulatory definition of crop residue as described above and is similar to a feedstock that we identify as a crop residue in Table IV.D.3–1, then it is likely that EPA would consider it as qualifying as a crop residue. Conversely, if it is not clear that a product meets the regulatory definition of crop residue as described above, or if the feedstock is not similar to any of the feedstocks identified in Table IV.D.3–1, then there is greater uncertainty that it will qualify.[73]

EPA acknowledges that it may not always be straightforward for a stakeholder to determine for themselves whether a crop product is likely to qualify under the crop residue pathway, even with the guidance provided in this preamble and in the revised definition. In light of this, and to promote accurate identification of feedstocks that do and do not qualify as crop residues, EPA is implementing additional registration, recordkeeping, and reporting requirements for producers intending to use crop residue as a feedstock. These additional requirements will help to ensure that producers of renewable fuel do not inadvertently attempt to generate RINs under a crop residue pathway utilizing a feedstock that EPA does not consider to be a crop residue. See section IV.D.4 of this final rulemaking for more details on these requirements.

2. Consideration of Corn Kernel Fiber as a Crop Residue

We also proposed in the NPRM that corn kernel fiber be considered a crop residue. Corn kernel fiber has not been specifically mentioned as a type of crop residue in any previous RFS rulemaking. However, EPA has received several requests to consider corn kernel fiber to be a crop residue. Because it had not been considered a crop residue previously, EPA conducted an evaluation that assessed whether corn kernel fiber should be considered a crop residue. This analysis focuses on whether corn kernel fiber can be considered ''left over from the harvesting or processing of planted crops'', whether it has ''no significant impacts on demand for the feedstock crop, products produced from that crop, or any substitutes for the crop and its products'' nor ''any other impact that would result in a significant increase in direct or indirect GHG emissions.''

We requested comment on our proposed analysis. We received significant comment supporting our analysis and our proposal that corn kernel fiber should be considered a crop residue.[74] We did not receive any comments opposing our analysis or our conclusions. Accordingly, we have decided based on the assumptions, facts and analysis described below that corn kernel fiber should be considered crop residue as proposed. Should relevant facts described in our analysis change, a re-evaluation of the issue may be warranted. Our analysis of corn kernel fiber can serve as one of many possible illustrative examples of how crop products can be evaluated for qualification as crop residues, in addition to our previous considerations of other feedstocks that we consider to be crop residue, such as corn stover.[75]

a. Analysis of Corn Kernel Fiber as a Crop Residue

The amended definition of crop residue requires us to consider any potential ''significant impact on demand for the feedstock crop, products produced from that feedstock crop, and all substitutes for the crop and its products, and any other impact that would result in a significant increase in direct or indirect GHG emissions.'' To determine whether the use of corn kernel fiber to produce renewable fuel would lead to increased direct or indirect GHG emissions stemming from any of these sources, EPA conducted a detailed assessment of the two major potential sources of emissions from this feedstock, namely effects on feed markets and effects on demand for corn. In our analytical judgment, any impacts on corn, corn products, or substitutes for corn or corn products would come from impacts on the feed market for dried distillers grains (DDG) or from some other impact on overall demand for corn. We did not identify any other potential sources of significant increased GHG emissions in our proposed analysis, and no commenter suggested that any such source might exist. Therefore, we are confident that the analysis we have conducted below adequately addresses all aspects of the definition of crop residue, excepting questions regarding the source of the biomass, which will be evaluated in the context of each individual producer registration pursuant to 40 CFR 80.1450.

Producers acquire corn kernel fiber for ethanol feedstock as a part of the whole corn feedstock stream entering into a corn starch ethanol plant. This fiber stream may then be accessed for ethanol production in one of two general ways. One option is for producers to extract it from matter that would otherwise be converted to DDG during the dry mill corn ethanol production process. This step can be performed either before or after that matter has been separated from the corn starch ethanol. In either case, the corn fiber is processed into ethanol via a separate stream from corn starch ethanol production. A second option is for producers to access and convert the fiber in situ along with the corn starch that is converted to ethanol. In order to meet the definition of a crop residue, the source of corn kernel fiber must be incidental to some other primary purpose. An ethanol producer utilizing corn kernel fiber as a feedstock cannot purchase whole corn for the primary purpose of generating corn fiber ethanol and still qualify their feedstock as crop residue.

Consequently, this analysis relied significantly on the assessment of corn starch ethanol-derived DDG that was conducted for the March 2010 RFS final rule, adjusting the analysis to account for the extraction of fiber from this product.[76] The analysis also drew substantially on the available scientific literature on low fiber DDG (LF–DDG), as well as the expertise of the U.S. Department of Agriculture. Potential producers also submitted important data that helped EPA evaluate the lifecycle GHG emissions of corn kernel fiber.

It is important to note that all animal feed products must be approved by the U.S. Food and Drug Administration (FDA) before they can be sold in the United States. EPA's analysis makes observations and draws conclusions about the characteristics and likely uses of LF–DDG based on the available literature regarding LF–DDG that has

[73] It is important to keep in mind that not qualifying under the crop residue pathway does not in any way exclude fuel produced from a given feedstock from qualifying to generate RINs with a D code of 3 or a D code of 7 more generally. It only means that a new pathway would need to be established, were EPA to find that the fuel produced from that feedstock meets the 60 percent threshold.

[74] Several commenters expressed extremely similar opinions on this point. But see, for example, comments submitted by the Renewable Fuels Association, (EPA–HQ–OAR–2012–0401–0123), the National Corn Growers Association (EPA–HQ–OAR–2012–0401–0065), and Growth Energy (EPA–HQ–OAR–2012–0401–0173).

[75] For our analysis of corn stover in the context of the crop residue pathway, see 75 FR 14670, March 26, 2010.

[76] See 75 FR 14670, March 26, 2010.

been fed to livestock in research settings. However, at this time the FDA has not approved LF–DDG for use in commercial animal feed. Nothing in EPA's analysis should be construed as an official federal government position regarding the approval or disapproval of LF–DDG as an animal feed. Only FDA is authorized to make that determination. Our analysis proceeds from the assumption that producers of LF–DDG will be able to gain FDA approval for these feed products and that they will do so before commencing production and sale of this feed product. If however FDA does not approve LF–DDG as an animal feed, there will be implications for the LCA of corn kernel fiber, and EPA will revisit its determination.

EPA found that extracting the fiber from corn matter used to produce standard DDG would not have a significant effect on feed markets. Processors who extract the fiber from corn produce a feed product known as LF–DDG, as opposed to standard DDG, which retains the fiber. The scientific literature on LF–DDG animal nutrition has found that this product has at least equal, and perhaps even slightly superior, nutritional value for swine and poultry compared to standard DDG.[77] This means that, even though the physical volume of the LF–DDG produced by ethanol plants using corn kernel fiber extraction technology will be somewhat smaller than the volume of DDG produced by plants not extracting corn kernel fiber, the nutritional content of LF–DDG for swine and poultry will be equivalent to or greater than DDG.

Conversely, LF–DDG is an inferior feed for cattle compared to standard DDG, since ruminants benefit from ingesting corn fiber in DDG.[78] Therefore, EPA expects swine and poultry producers to absorb the supply of LF–DDG, while the cattle and dairy industry will continue to consume standard DDG. With this dynamic in place, fiber extraction from DDG should not significantly affect feed markets, since there will be no reduction in the overall supply of DDG in terms of nutritional content nor will there be any impact on aggregate demand for other animal feed sources.

If enough corn ethanol producers adopt fiber extraction technology, LF–DDG could saturate swine and poultry demand and spill over into dairy and cattle feed markets. If a situation arises where LF–DDG begin to replace standard DDG in dairy and/or cattle markets, this could lead to an increase in aggregate feed demand, most likely in the form of increased demand for fiber supplements in dairy and cattle feed. This theoretically could cause an increase in GHG emissions. However, we do not expect this to occur. If swine and poultry demand for LF–DDG becomes saturated, demand for standard DDG in the cattle and dairy industries should create sufficient market incentives for the remaining corn starch ethanol producers to decide against adopting corn fiber ethanol production. EPA believes this will prevent a situation where there is insufficient supply of standard DDG in the cattle and dairy industries. However, as noted above, if significant facts change, it may be appropriate for EPA to reexamine corn kernel fiber as a crop residue in the future.

EPA's analysis indicates that producing ethanol from corn kernel fiber is unlikely to increase overall demand for corn, in addition to having no significant impact on feed markets. It is our judgment, based on the analysis above, that the primary purpose of procuring whole corn for processing in a corn starch ethanol plant is to produce corn starch ethanol, since more than 90 percent of the ethanol produced will be from the starch. The plant would most likely procure that same quantity of whole corn regardless of whether they were converting the fiber into ethanol or sending it to some other end use. The diversion of corn kernel fiber from the DDG stream to an ethanol production stream will not materially affect the value of the feed products produced by a corn starch ethanol plant per bushel of corn processed. Because of this, there will be no significant incentive for the plant that is producing ethanol from corn kernel fiber to procure more or less corn than they would if they were selling the fiber as part of their DDG product. We can find no evidence to support a claim that production of ethanol from corn kernel fiber has any significant impact on demand for corn, products produced from corn, or the substitutes for corn and its products. Further, we find that if corn kernel fiber is not used to produce ethanol, it will be left over from the corn starch ethanol production process, because its presence or absence in DDG products does not materially impact the value of those DDGs or the overall market for DDGs and feed products. Finally, we were unable to identify any other potentially significant impacts associated with utilizing corn kernel fiber to produce renewable fuel that might lead to significant GHG emissions, nor were any such impacts identified during public notice and comment. Based on these factors, we find that utilizing corn kernel fiber to produce renewable fuel would have no significant impacts on GHG emissions. These findings support a determination that corn kernel fiber meets the definition of a crop residue. Therefore, corn kernel fiber may be used as a feedstock in those pathways in Table 1 to § 80.1426 that specify crop residue as a feedstock.

b. Treatment of Corn Starch That Adheres to Corn Kernel Fiber After Separation From DDG

EPA sought comment on whether the definition of crop residue should be amended to explicitly exclude the corn starch component, since some corn starch may still adhere to the corn kernel after separation. Additionally, EPA invited comment on how RINs should be allocated for fuel derived from corn fiber, including comment on the sufficiency of current RFS regulations with regards to the assignment of RINs to batches of corn starch ethanol and corn kernel fiber ethanol produced via consolidated bioprocessing and whether producers have the technological capability to adequately demonstrate the volume of fuel produced under each pathway.

Commenters confirmed that some starch may adhere to the unconverted fiber, even after most of the starch has been processed into ethanol.[79] However, many of those same commenters also supported considering this starch as ''de minimis'' under our current regulations.[80] Those current regulations state that ''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.'' [81] We received several comments noting that corn kernels undergo a rigorous mechanical process designed to separate the starch from the

[77] *See, e.g.,* Kim, E.J., C.M. Parsons, R. Srinivasan, and V. Singh. 2010. *Nutritional composition, nitrogen-corrected true metabolizable energy, and amino acid digestibilities of new corn distillers dried grains with solubles produced by new fractionation processes. Poultry Science* 89, p. 44, available on the docket for this rulemaking as EPA–HQ–OAR–2012–0401–0002. *See also* additional studies cited within Kim et al 2010.

[78] *See* Shurson, G.C. 2006. *The Value of High-Protein Distillers Coproducts in Swine Feeds. Distillers Grains Quarterly,* First Quarter, p. 22, available on the docket for this rulemaking as EPA–HQ–OAR–2012–0401–0003.

[79] See, for example, comments submitted by Edeniq, Inc. (EPA–HQ–OAR–2012–0401–0159).

[80] Numerous commenters supported this position. See, for example, comments submitted by Edeniq, Inc. (EPA–HQ–OAR–2012–0401–0159), the American Coalition for Ethanol (EPA–HQ–OAR–2012–0401–0147), and Growth Energy (EPA–HQ–OAR–2012–0401–0173).

[81] *See* specifically § 80.1426(f)(1).

rest of the corn kernel before processing that starch into ethanol. Despite this process, some starch adheres to the fibrous portions of the kernel and, in a standard corn starch ethanol plant, ends up in the DDG.[82]

Commenters argued that this adhering starch is indeed impractical to remove and is present only in small quantities.[83] In the preamble of the NPRM for this rulemaking, EPA stated that starch might compose up to 20 percent of the separated mass used to produce corn kernel fiber ethanol via a separate stream, based on data from 1998. Through the public comment process, we received more recent and fine-grained data that better represents current methods of starch-fiber separation. Based on this newer data, we believe the actual amount of starch that adheres to the fiber after separation from the rest of the corn kernel is typically less than 5 percent of the total mass of the separated corn kernel fiber feedstock.[84]

In light of the small quantity of starch involved, typically less than 5 percent of the mass, and the impracticability of separating the starch which adheres to the fiber, we believe that this starch component can appropriately be considered a de minimis contaminant. Like all plant fibers, the fibrous portion of corn kernel fiber is composed of nearly 100 percent cellulose, hemicellulose, and lignin. Taken together with the small quantity of adhering corn starch, corn kernel fiber is clearly above the 75 percent threshold we have established in today's rulemaking for determining when a feedstock is predominantly cellulosic, and this is also consistent with our finding, discussed in section IV.A. of the preamble, that crop residue as a class has at least 75 percent cellulosic content. To be clear, this de minimis determination only applies to starch adhering to corn kernel fiber that is being processed into ethanol separately from corn starch ethanol. Processes that convert corn starch and corn kernel fiber to ethanol in situ (as is described in detail in the next section) may not consider any portion of the corn starch to be de minimis. Furthermore, if any producer processing corn kernel fiber separately from corn starch fails to use best practices[85] to separate adhering corn starch, in an attempt to boost production of cellulosic biofuel from processing corn kernel fiber or for any other reason, the adhering starch will not be considered a de minimis contaminant, and the entire batch of resulting fuel will not be considered derived from crop residue and will not qualify as cellulosic biofuel. Since processing of the corn kernel would be incomplete, the feedstock would not be considered left over from processing and would not meet the definition of crop residue in § 80.1401. While the batch of resulting fuel might be eligible to generate renewable biofuel RINs (D code of 6) for the starch-derived component of the fuel, RINs could only be generated for the fuel derived from non-starch components of such feedstock to the extent that such volumes were grandfathered under § 80.1403(c) or (d).Based on the existing reporting requirements listed in § 80.1451(b)(1)(ii),[86] EPA is already requiring the data necessary to identify whether the cellulosic RINs that a fuel producer is generating is disproportionate to the amount of corn kernel fiber processed at a facility. EPA collects feedstock volumes, fuel volumes, and other data reported to determine that RINs and volumes are generated in accordance with the regulations.

c. Processing Corn Kernel Fiber

Corn kernel fiber may be used for biofuel production in multiple ways. As detailed above in section IV.A.4, renewable fuel can be produced pursuant to biochemical conversion processes that simultaneously hydrolyze and/or ferment cellulosic and non-cellulosic material into fermentable sugars and/or fuel. Corn kernel fiber as a crop residue may be converted into qualifying renewable fuel via biochemical methods in one of two ways.[87] First, it may be converted via a consolidated bioprocessing method that converts cellulosic and non-cellulosic corn material into sugars and/or fuel products simultaneously. Second, corn kernel fiber may be converted to sugar and/or fuel via a separate stream from the corn starch sugar and fuel conversion streams.

The first method may include simultaneous hydrolysis of the starch and cellulosic components of the corn kernel into sugars, followed by simultaneous conversion of those sugars into fuel products. In other cases, the cellulosic and non-cellulosic portions of the corn kernel may be hydrolyzed separately but fermented together in a single vessel. In either case, EPA considers this process technology to be a method of simultaneous conversion. We discuss the requirements for using a simultaneous conversion process in section IV.A.4 of this preamble.

Alternatively, producers may hydrolyze and ferment the cellulosic and non-cellulosic portions of the corn kernel via separate streams. This may be accomplished in at least one of two ways. A producer might separate the starch from the corn kernel fiber before the hydrolysis step, sending each set of material through separate hydrolysis, fermentation, and distillation streams. A producer might also perform a conventional corn starch ethanol fermentation process, yielding corn starch ethanol, and then hydrolyze and ferment the residual solids (which typically become DDG at the end of the process) a second time, using enzymes designed to convert cellulosic material to sugars. If a producer uses a process that hydrolyzes and ferments the corn kernel fiber separately from the corn starch, either in a parallel but separate process or in a sequential process that extracts the fiber from the residual solids after corn starch ethanol fermentation, then the producer is not considered to be performing simultaneous conversion, and all of the resulting corn kernel fiber-derived fuel may appropriately be considered derived from predominantly cellulosic biomass. As discussed above, some starch may adhere to the fiber after the separation step or may remain in the residual solids output of a conventional corn starch ethanol fermentation process. However, we believe this small amount of corn starch contaminant fits under EPA's de minimis feedstock contaminant provision in the existing regulations, and should be disregarded.[88] This is the case even if a producer were to add enzymes which might convert starch adhering to the corn kernel fiber to ethanol.

[82] See comments submitted by Quad County Corn Processors (EPA–HQ–OAR–2012–0401–0063), by Edeniq, Inc. (EPA–HQ–OAR–2012–0401–0159), and the American Coalition for Ethanol (EPA–HQ–OAR–2012–0401–0147).

[83] See, for example, comments submitted by Edeniq, Inc. (EPA–HQ–OAR–2012–0401–0159).

[84] Ibid.

[85] Data submitted by commenters indicate that the rigorous mechanical process employed to separate corn kernel fiber and corn starch will typically allow less than 5% of residual starch to adhere to the fiber after separation. See comments submitted by Quad County Corn Processors (EPA–HQ–OAR–2012–0401–0063), by Edeniq, Inc. (EPA–HQ–OAR–2012–0401–0159), and the American Coalition for Ethanol (EPA–HQ–OAR–2012–0401–0147).

[86] Required information includes: Quantity of RINs generated, volume of fuel produced, feedstock type, and exact feedstock quantity.

[87] Corn kernel fiber may also be converted to fuel via thermochemical methods. See section IV.A.4 for details on the requirements for renewable fuel production via thermochemical pathways.

[88] *See* specifically § 80.1426 (f) (1).

3. Identification of Feedstocks EPA Considers Crop Residues

To provide additional guidance on the definition of crop residue, EPA is identifying several feedstocks that we consider to be crop residues. In the NPRM, we provided a table that included feedstocks which we have previously identified as crop residues in public documents and which we believed fit the definition of crop residue.[89] That table included corn stover, corn kernel fiber (see section IV.D.2 above for further discussion), citrus residue, rice straw, sugarcane bagasse, and wheat straw. All of these feedstocks were identified as crop residues in the preamble of the March 2010 RFS final rulemaking, with the exception of corn kernel fiber. For example, EPA analyzed the agricultural sector GHG emissions of using corn stover for biofuels in the final March 2010 RFS final rulemaking and found that fuel produced from this feedstock met the 60% GHG reduction threshold for cellulosic biofuels.[90] Since the direct and indirect impacts of several other crop products, including citrus residue, rice straw, and wheat straw, were expected to be similar to those of corn stover, EPA also applied the land use change impacts associated with corn stover to those products as well. Based on that analysis, EPA found that fuels produced from these products also met the 60% reduction threshold. EPA further determined that fuels produced from materials left over after the processing of a crop into a useable resource had land use impacts sufficiently similar to agricultural residues to also meet the 60% threshold. EPA specifically cited bagasse left over from sugarcane processing as an example of this type of crop residue.

EPA sought comment on whether these feedstocks should be considered crop residues, whether these feedstocks would have direct and indirect GHG impacts similar to corn stover, and whether additional feedstocks should also be considered crop residues. We received numerous comments that supported considering all of these feedstocks as crop residues.[91] We did not receive any comments that opposed considering any of the feedstocks identified in the NPRM as crop residues, nor did we receive any comments that disputed our reasons for considering them crop residues.

In addition, several commenters identified other crop products which are extremely similar to those that we proposed to consider crop residues. Commenters noted that we have identified sugarcane bagasse as a crop residue in multiple rulemakings, including the March 2010 RFS final rule and the NPRM of this rule, but have not previously considered sweet sorghum bagasse.[92] The processes for separating bagasse from simple sugars is very similar between sugarcane and sweet sorghum and the market and other potential GHG impacts of utilizing that bagasse to produce renewable fuel are also considered to be similar. Therefore we are today identifying both as feedstocks which we consider crop residues.

Commenters noted that we identified corn stover as a crop residue in the NPRM, but have not previously considered grain sorghum stover.[93] Since the composition, methods of production, methods of collection, market potential, and implications for other relevant markets for these two types of stover are nearly identical, these two stovers would reasonably seem to have similar GHG impact profiles.

Commenters also noted that, in the NPRM, we did not list grain fibers other than corn kernel fiber. To the extent that other grain kernel fibers are extracted and used for biofuel feedstock in the same manner as we lay out for corn kernel fiber in section IV.D.2 above (i.e., during the processing of grain feedstock into ethanol), these products would reasonably seem to have similar GHG impact profiles to corn kernel fiber.[94] To the extent that these grain fibers are obtained in the same manner that we have laid out for corn kernel fiber, their alternative fate would also be distillers grains. The impacts of fiber on the digestion of ruminants, swine, and poultry are extremely similar, regardless of what grain that fiber came from, because all grain fiber is virtually 100 percent cellulosic. Therefore, we are confident that diverting that fiber to a fuel production stream would have similarly insignificant market and other GHG impacts to those of corn kernel fiber, and we similarly consider them to be crop residues under those circumstances.

Commenters also pointed out that we identified wheat straw and rice straw as crop residues in the NPRM but did not identify other grain straws (e.g., oat straw, barley straw) as residues, even though these products would reasonably seem to have similar GHG impact profiles to wheat straw and rice straw.[95] EPA has determined that these straws do indeed have similar GHG impacts to those of wheat straw and rice straw. All of them have similarly insignificant markets, insignificant effects on demand for the crop from which they are derived, and insignificant impacts on other crop products and substitutes. Further they are processed into renewable fuel in nearly identical ways. Therefore, we consider all of the grain straws listed in Table IV.D.3–1 below to be crop residues.

Finally, while we proposed to identify ''citrus residue'' as a crop residue in the NPRM, several stakeholders have suggested that this label is rather vague. There are several different types of byproducts or residues from citrus processing (e.g., peels, pulp, seeds), each with a unique chemical composition and degree of alternative usefulness. EPA does not currently have sufficient information to determine that all byproducts of citrus processing meet the requirements of the crop residue pathway. Producers wishing to utilize citrus processing byproducts as a feedstock under the crop residue pathway will need to provide EPA with further information about the materials they are utilizing, per the registration requirements detailed in section IV.D.4.a of this FRM.

In Table IV.D.3–1 we are identifying several crop products that EPA considers to be crop residues.[96] This table is meant to be illustrative, not exhaustive, of the types of crop products that EPA considers to be crop residues. It is included here to provide guidance and greater clarity to stakeholders; it should not be considered a definitive list. It will not appear in our regulations, though EPA may publish a table similar

[89] See Table IV.D.3–1—Feedstocks That May Qualify as Crop Residue, 78 FR, 36056–36057, June 14, 2013.

[90] See EPA–HQ–OAR–2005–0161–3173.2, EPA–HQ–OAR–2005–0161–3173.3, and EPA–HQ–OAR–2005–0161–3173.4, under the Lifecycle Results Docket for the March 2010 RFS Final Rulemaking.

[91] Several commenters expressed extremely similar opinions on this point. But see, for example, comments submitted by the Renewable Fuels Association, (EPA–HQ–OAR–2012–0401–0123), the National Corn Growers Association (EPA–HQ–OAR–2012–0401–0065), and Growth Energy (EPA–HQ–OAR–2012–0401–0173).

[92] See comments submitted by NexSteppe Inc. (EPA–HQ–OAR–2012–0401–0153). See also 75 FR 14692, March 26, 2010 and 78 FR 36042, June 14, 2013.

[93] See comments submitted by the National Sorghum Producers (EPA–HQ–OAR–2012–0401–0065), Iogen Corporation (EPA–HQ–OAR–2012–0401–0135), NexSteppe Inc. (EPA–HQ–OAR–2012–0401–0153).

[94] See comments submitted by Novozymes North America Inc. (EPA–HQ–OAR–2012–0401–0088), ICM (EPA–HQ–OAR–2012–0401–0114), NexSteppe Inc. (EPA–HQ–OAR–2012–0401–0153), Growth Energy (EPA–HQ–OAR–2012–0401–0173),

[95] See comments submitted by Iogen Corporation (EPA–HQ–OAR–2012–0401–0135),

[96] Our analysis of corn kernel fiber as a crop residue is discussed in section IV.D.2 of this preamble.

to Table IV.D.3–1 on our Web site for the convenience and education of stakeholders. We acknowledge that there may be other crop products which were not brought to our attention during this rulemaking process and which are not included in Table IV.D.3–1, but which may meet the definition of crop residue as we are clarifying it in today's final rulemaking. Further details regarding how EPA may evaluate these crop products can be found in section IV.D.1 and section IV.D.2 of this final rulemaking. Additionally, stakeholders may also want to consult section IV.D.4 of this final rulemaking, which describes new RRR requirements for producers who wish to use crop residue as a feedstock for renewable fuel production.

TABLE IV.D.3–1—FEEDSTOCKS THAT EPA CONSIDERS CROP RESIDUES

Sugarcane and Sweet Sorghum Bagasse.
Kernel Fiber from Barley, Corn, Oats, Rice, Rye, Grain Sorghum, and Wheat.
Stover from Corn and Grain Sorghum.
Straw from Barley, Oats, Rice, Rye, Soybeans, and Wheat.

4. Registration, Recordkeeping, and Reporting Requirements Associated With Using Crop Residue as a Feedstock

Under current regulations, producers registering to generate RINs using the crop residue pathway are not required to specify exactly which crop products they intend to use. This could potentially lead to a situation where a producer inadvertently generates invalid RINs by producing a batch of fuel from a crop product that does not meet the crop residue definition. In order to ensure that producers only utilize crop products which EPA considers to be crop residues and thereby generate valid RINs when using a crop residue pathway, we are implementing additional RRR requirements for producers using crop residue as feedstock under any approved pathway.

a. Registration Requirements for Producers Utilizing Crop Residue as a Feedstock

EPA acknowledges that the regulatory definition adopted today may be difficult to interpret in some respects. On the other hand, EPA believes that the proposed revised definition appropriately describes crop products that should qualify as crop residues. In order to reduce uncertainty and confusion in the application of the revised definition, we are implementing a new registration requirement for those seeking to use crop residues as a feedstock. Any entity registering to use crop residue as a feedstock must, as a part of their registration package submitted pursuant to 40 CFR 80.1450, include a list of all crop materials they intend to use that they consider to be crop residue, and a justification for their belief that the listed crop materials meet the regulatory definition of crop residue. These regulatory amendments appear in 40 CFR 80.1450.

If the crop product is one that EPA has previously identified as meeting the regulatory definition of crop residue, then referencing the relevant EPA document will likely be sufficient justification. However, if a crop product is not one that EPA has previously identified as a crop residue, then EPA intends to evaluate whether that feedstock meets the regulatory definition prior to accepting the facility's registration. If the feedstock is very similar to one that EPA has already evaluated, this may be a relatively brief process. See the discussion in section IV.D.3 above for some examples of how this comparison could be performed by EPA. However, if the feedstock markedly differs from those we have evaluated previously, as corn kernel fiber did before this final rulemaking, then a more extensive analysis, even including lifecycle GHG analysis, may be required. Each feedstock presents its own sets of questions. Stakeholders may wish to consult our analysis of corn kernel fiber in section IV.D.2 of this rulemaking for an example of such an analysis.

If EPA decides that further analysis of a particular feedstock is needed, the registrant will have the option of removing the crop product from its registration package, in order to allow the remainder of the package to be processed more quickly and to allow the producer to be registered and begin production using other feedstocks pending EPA's analysis. If EPA later determines that the crop product in question meets the regulatory definition of crop residue, then the registrant could update their registration to include that feedstock. However, in order to avoid delay, stakeholders may wish to consult EPA's Web site and rulemakings regarding the definition of crop residue before submitting their registration. Should a stakeholder discover that a feedstock they are planning to utilize has not been previously identified by EPA as a crop residue, it may be beneficial and expedient for them to consult EPA before submitting their registration. We are not finalizing any requirement that stakeholders take this affirmative step before submitting their registration. However, we believe that taking this step may lead to a more streamlined process for entities who wish to utilize a new crop product as feedstock in pathways providing for use of crop residue.

Entities who are already registered to generate renewable fuel using crop residue as a feedstock will not be required to immediately update their registration to conform to these new requirements. However, when these entities perform periodic updates to their registration pursuant to 40 CFR 80.1450(d)(3), they will be required to include the information described in these new requirements at that time.

b. Recordkeeping and Reporting Requirements for Producers Utilizing Crop Residue as a Feedstock

In addition to the registration requirements outlined above, EPA is also requiring that any entity registered to generate RINs using crop residue as a feedstock keep records of the quantities of each specific crop product they utilize, and that they report the quantities used to generate qualifying renewable fuel over the past three months in each quarterly report to EPA.[97] This requirement is somewhat different from the feedstock reporting requirement associated with reporting RIN generation in EMTS. In EMTS, the RIN generator is only required to report the total quantity of crop residue used to produce the batch of fuel for which RINs are generated. These new recordkeeping and quarterly reporting requirements go a step further by requiring specific accounting of the exact quantities of individual crop products used by the producer over a three-month period. The exact regulatory requirements of this new provision are detailed in the amendments to 40 CFR 80.1451 and 80.1454 below.

E. Amendments to Various RFS Compliance Related Provisions

We are finalizing a number of changes to the RFS regulations related to compliance, except for the definition of ''Responsible Corporate Officer'' (RCO), which was proposed but is not being finalized.

1. Changes to Definitions

''Responsible Corporate Officer'':

EPA is not finalizing the definition of ''responsible corporate officer'' at this time. The existing RFS regulations at §§ 80.1416, 80.1451 and 80.1454, and

[97] At the time of this rulemaking, RIN generators would report this information via quarterly report number RFS0801. See *http://www.epa.gov/otaq/fuels/reporting/rfs.htm* for further details.

EPA guidance and instructions regarding registration and reporting, frequently refer to the responsibilities of the ''owner or a responsible corporate officer.'' However, the term ''responsible corporate officer'' had not been defined in the RFS regulations.

Several commenters requested that EPA review its existing policy on acceptable position titles and what registration updates have to be approved by an RCO. These comments were directed at EPA's administrative procedures and registration system, rather than the regulatory responsibilities of the RCO with regard to compliance with RFS standards. EPA needs to evaluate the registration process, which may include potential modifications to the registration system, for opportunities to minimize burden on RCOs and to better differentiate an RCO's roles with respect to program compliance versus administrative roles in our registration system. Based on these comments and the potential for registration system modifications, EPA is not finalizing the RCO definition at this time. Regulated parties should continue to follow existing regulations and registration procedures.

''Small Refinery'':

Section 211(o)(9)(A) of the Clean Air Act provides an exemption from RFS requirements through 2010 for ''small refineries,'' defined as refineries having an average aggregate daily crude oil throughput ''for a calendar year'' that does not exceed 75,000 barrels. It also provides for possible extensions of this exemption, through individual petitions to EPA under CAA section 211(o)(9)(B). In EPA's March 26, 2010 regulations implementing the EISA amendments to the RFS program we specified in the regulatory definition of ''small refinery'' that the 75,000 bpd threshold determination should be calculated based on information from calendar year 2006. At the beginning of the program, having a single year in which to make this determination simplified the calculations and helped to ensure that all refineries were treated similarly. However, we no longer believe that it is appropriate that refineries satisfying the 75,000 bpd threshold in 2006 should be eligible for extensions to their small refinery RFS exemption if they no longer meet the 75,000 bpd threshold. Allowing such facilities to qualify for an exemption extension, while not allowing similarly sized facilities that have not grown since 2006 to qualify for an exemption, does not appear fair, nor does it further the objectives of the statute to target relief to only truly small facilities. Therefore, we proposed modifying the definition of small refinery so that the crude throughput threshold of 75,000 bpd must apply in 2006 and in all subsequent years. We also proposed specifying in § 80.1441(e)(2)(iii) that in order to qualify for an extension of its small refinery exemption, a refinery must meet the definition of ''small refinery'' in § 80.1401 for all full calendar years between 2006 and the date of submission of the petition for an extension of the exemption.

We proposed that that these changes would not affect any existing exemption extensions under CAA section 211(o)(9)(B); rather, they would apply at such time as any approved exemption extension expires and the refinery at issue seeks a further exemption extension. No further extension would be permitted unless the revised crude oil throughput specifications were satisfied.

We received two comments on our proposed small refinery revisions, both supporting EPA's proposed change. After further consideration of this matter, we believe that the proposal could unfairly disqualify a refinery from eligibility for small refinery relief based only on a single year's production since 2006. We do not believe it would be appropriate to treat two refineries whose recent operating conditions were equivalent differently if one refinery exceeded 75,000 bpd in a single year as much as 8 years ago. Considering this concern and the intent in our proposal to treat similarly sized facilities the same, we are modifying the final rule to require that throughput be no greater than 75,000 barrels in the most recent full calendar year prior to an application for hardship. We will also clarify that a qualifying small refinery can't be projected to exceed the threshold in the year or years for which it is seeking an exemption. Production that exceeds the average aggregate 75,000 barrel per date limitation during an approved exemption period would invalidate the exemption. With these modifications, we believe we will better address our primary concern from proposal of treating refineries with similar performance the same. We believe that these changes reasonably implement the statutory definition of ''small refinery,'' which indicates that the 75,000 barrel aggregate daily crude oil throughput is for ''a calendar year,'' but does not specify which calendar year should be the focus of inquiry. The final rule places the focus on the time period immediately prior to and during the desired exemption period, which we believe is most appropriate given the objectives of the provision.

2. Provisions for Small Blenders of Renewable Fuels

The RFS regulations at § 80.1440 allow renewable fuel blenders who handle and blend less than 125,000 gallons of renewable fuel per year, and who are not obligated parties or exporters, to delegate their RIN-related responsibilities to the party directly upstream from them who supplied the renewable fuel for blending. EPA has received feedback from several parties to the effect that the 125,000 threshold is too low and is a lower threshold than what industry considers ''small.'' EPA requested input on what a more appropriate gallon threshold should be.

EPA received two comments supporting an increase in the threshold and one comment suggesting it remain at the current amount of 125,000 gallons. Of the two commenters suggesting the amount should be increased, one suggested an increased amount of 250,000 gallons, and the other suggested an increased amount of 3 to 4 million gallons. Based on comments received from stakeholders previously and based on comments received on the proposed rule, EPA believes it is reasonable to increase the threshold for small blenders of renewable fuels (those that are not obligated parties or exporters) to help relieve burden from managing RINs. However, EPA is cautious not to increase the threshold beyond what is reasonable and beyond an amount that would be considered ''small.'' EPA generally agrees with one of the commenter's suggested amount of 250,000 gallons. Doubling the threshold from 125,000 gallons to 250,000 gallons will provide additional relief to the smallest renewable fuel blenders. Therefore, EPA is adjusting the gallon threshold for small blenders of renewable fuels (and who are not obligated parties or exporters) that want to delegate their RIN-related responsibilities to the party directly upstream from them who supplied the renewable fuel for blending. The threshold is being changed from 125,000 gallons to 250,000 gallons in today's final rule.

3. Changes to § 80.1450—Registration Requirements

EPA is adding a new paragraph (h) to § 80.1450 that describes the circumstances under which EPA may deactivate a company registration and an administrative process to initiate a deactivation that provides any company the opportunity to respond to and/or timely submit the required information.

EPA originally proposed deactivating a company registration where there had been no activity in EMTS for one calendar year (January 1 through December 31). Commenters noted that there may be valid reasons for a break in use of EMTS within a calendar year. To avoid this scenario, EPA is modifying this provision to specify that if a company has reported no activity in EMTS under § 80.1452 for twenty-four calendar months, then EPA will initiate this administrative process. In addition, for this particular circumstance, if a party responds within 14 days of EPA notification of an intent to deactivate registration with a letter stating that they wish to remain as a current registered party, EPA will not deactivate their registration. If there is no response received, or the response does not indicate a desire to for the entity to remain actively registered, then EPA may deactivate the registration.

EPA may also deactivate a company registration if a party fails to comply with any registration requirement of § 80.1450, if the party fails to submit any required compliance report under § 80.1451, if the party fails to meet the requirements related to EMTS under § 80.1452, or if the party fails to meet the requirements related to attest engagements under § 80.1454. EPA will provide written notice to the owner or responsible corporate officer (RCO) that it intends to deactivate the company's registration and would allow the company fourteen (14) days from the date of the letter's issuance to correct the deficiencies noted or explain why there is no need for corrective action. If there is no satisfactory response received, then EPA may deactivate the registration. Reactivation will be possible following the submission or updating of all required information and reports.

4. Changes to § 80.1452—EPA Moderated Transaction System (EMTS) Requirements—Alternative Reporting Method for Sell and Buy Transactions for Assigned RINs

EPA proposed an alternative method for recording in EMTS the date of title transfer between the buyer and seller. Specifically, the parties involved in a trade of renewable fuel with assigned RINs would agree beforehand on using either the current methodology for determining the date of transfer or the parties would utilize a unique identifier and only the buyer would enter into EMTS the title transfer date.

EPA is not finalizing this proposal at this time due to impacts on other systems functionality and processes. EPA may choose to pursue this proposal in a later rulemaking when we have sufficient resources to modify impacted systems.

5. Changes to Facility's Baseline Volume To Allow ''Nameplate Capacity'' for Facilities Not Claiming Exemption From the 20% GHG Reduction Threshold

As a requirement of registration under the RFS program, each renewable fuel producer and foreign ethanol producer must establish and provide documents to support its facility's baseline volume as defined in § 80.1401. This is either 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. After the promulgation of the March 26, 2010 RFS rule, we have received many requests from companies asking EPA to allow them to use their nameplate or ''design'' capacity to establish their facility's baseline volume due to either the facility being exempt from obtaining a permit, and thus not able to determine their permitted capacity, or the facility not starting operations, or not being operational for a full calendar year to produce actual production records to establish actual peak capacities. Because the regulations currently only allow a facility's baseline volume to be established by a limit stated in a permit or actual production records for at least one calendar year, facilities that had neither a permit or sufficient production records had difficultly registering under the RFS program. EPA proposed allowing use of nameplate capacity for registration, where permitted capacity or actual peak capacity could not be determined. There were no adverse comments regarding this proposal. Therefore, in this rulemaking we are finalizing our proposal to allow a facility to use its ''nameplate capacity'' to establish its facility's baseline volume for the purposes of registration. The ''nameplate capacity'' may be used only if the facility (1) does not have a permit or there is no limit stated in the permit to establish their permitted capacity; (2) has not started operations or does not have at least one calendar year of production records; and (3) does not claim exemption from the 20 percent GHG threshold under § 80.1403. Due to the complexity of the exemption provision provided under § 80.1403 and the added flexibility that facilities claiming this exemption are allotted under the program, we are finalizing our decision that the extension of this option not be available to facilities claiming an exemption under § 80.1403. Additionally, by this stage in the RFS program, the facilities that would qualify for registration under § 80.1403 would be very few, if any. We are also finalizing the revision of the definition of baseline volume to include ''nameplate capacity,'' add a new definition for ''nameplate capacity'' to § 80.1401, and include conforming amendments to the registration requirements of § 80.1450. The amendments today will allow the initial registration of certain facilities using nameplate capacity, but EPA interprets the requirements for registration updates under 80.1450(d)(3)(i) and (ii) to require the calculation and submission of actual peak capacity as part of the registration updates required in those sections where the facility has operated for a sufficient time period to allow that calculation.

6. Changes to § 80.1463—What penalties apply under the RFS program?

Preventing the generation and use of invalid RINs and encouraging rapid retirement and replacement of invalid RINs is crucial to the integrity of the RFS program. The RFS regulations include various provisions related to prohibited acts, liability for violations, and penalties for those violations.

Section 80.1460 sets forth the prohibited acts for the renewable fuels program. Section 80.1461(a) states that any person who violates a prohibition in § 80.1460(a) through (d) is liable for the violation of that prohibition, and § 80.1461(b) provides the liability provisions for failure to meet other provisions of the regulations. The penalty provisions of the regulations at § 80.1463(a) state that any person who is liable for a violation under § 80.1461 is subject to a civil penalty as specified in sections 205 and 211(d) of the Clean Air Act (CAA), for every day of each such violation and the amount of economic benefit or savings resulting from each violation. Section 80.1463(c) provides that ''any person . . . is liable for a separate day of violation for each day such a requirement remains unfulfilled.''

As described in the proposal, EPA interprets these statutory and regulatory penalty provisions to give the Agency the authority to seek penalties against parties generating, transferring or causing another person to generate or transfer invalid RINs for the day of the party's action and each day subsequent to the party's action that an invalid RIN is available for sale or use by a party subject to an obligation under the RFS program to acquire and retire RINs. For example, for a RIN generator, this time period typically runs from the date of invalid RIN generation until either effective corrective action is taken by

the RIN generator to remove the invalid RIN from the marketplace or a party uses the RIN to satisfy an RVO or other requirement to retire RINs. This is consistent with the CAA approach of assessing penalties for every day of a violation, consistent with EPA's historic approach under the fuels regulations (*see* § 80.615), and will encourage renewable fuel producers that generate invalid RINs to promptly take corrective action.

EPA received comments from two parties in opposition of the proposed regulation in § 80.1463. Both commenters stated that RIN may be kept in another party's inventory outside of the generator's or transferor's control. Therefore, if that RIN is later identified as invalid the generator and transferor could be held to substantial penalties based on actions by other parties beyond their control. One of the commenters stated they believe that finalizing this regulation will ''cause confusion and may create disincentives for producers to self-report and take corrective actions, rather than promote compliance.'' While EPA acknowledges that the RIN generator or subsequent transferor cannot force another party to retire invalid RINs, the regulations at § 80.1431(b)(1) state that ''Upon determination by any party that RINs owned are invalid, the party must . . . retire the invalid RINs in the applicable RIN transaction reports . . . for the quarter in which the RINs were determined to be invalid.'' Therefore, EPA believes that finalizing EPA's existing interpretation of per day violations for the generation or transfer of invalid RINs will minimize potential penalties and incentivize parties who committed a prohibited act at § 80.1460 (b)(1)–(4) and (b)(6) to identify invalid RINs to those owning parties so they can retire RINs as required in § 80.1431(b)(1) prior to an obligated party or renewable fuel exporter using those RINs for compliance purposes.

One commenter stated that EPA should continue to use its enforcement discretion to assign appropriate penalties instead of finalizing this regulation. In the proposal, EPA explained that this regulation would simply codify our existing practice and interpretation and that we would continue to evaluate the appropriate penalties for each violation on a case by case basis. Although EPA is finalizing this regulation to make it clear to the regulated industry that EPA has the authority to seek the maximum statutory penalty for each day of violation, the Agency will continue to evaluate appropriate penalties on a case by case basis.

As described above, EPA is finalizing the addition of the new paragraph (d) to § 80.1463 which more explicitly incorporates EPA's interpretation of these penalty provisions into the regulations. The language has been modified from the proposal to follow the existing format and language in § 80.1463. The amendments state that any person liable under § 80.1461(a) for a violation of § 80.1460(b)(1)–(4) and (b)(6) for RIN generation or transfer violations is subject to a separate day of violation for each day that the invalid RIN remains available for use for compliance purposes, and EPA has the authority to seek the maximum statutory penalty for each day of violation.

F. Minor Corrections to RFS Provisions

We are finalizing a number of corrections to address minor definitional issues that have been identified in implementing the RFS program.

Renewable Biomass:

We did not receive any significant comment on our proposed clarification to the definition ''renewable biomass'' in § 80.1401 and thus are finalizing proposed changes to make clear that biomass obtained in the vicinity of buildings means biomass obtained within 200 feet of the buildings. The preamble for the March 26, 2010 RFS final rule cites the distance of 200 feet (*see* 75 FR 14696), but EPA did not include a reference to this value in the regulations. We believe doing so provides additional clarity to the regulations.

''Naphtha'':

We did not receive any significant comment on our proposed clarification to the definition ''naphtha'' in § 80.1401 and thus are finalizing the proposed changes to make clear that we consider naphtha a blending component of gasoline.

English Language Translations:

We received no significant comments on our proposed changes related to English language translations. Therefore, we are finalizing the addition of a new paragraph (i) to § 80.1450 stating that any registration materials submitted to EPA must be in English or accompanied by an English language translation. Similarly, we are finalizing the addition of a new paragraph (h) to § 80.1451, which states that any reports submitted to EPA must be in English or accompanied by an English language translation. We are also finalizing the addition of a new paragraph (q) to § 80.1454, which states that any records submitted to EPA must be in English or accompanied by an English language translation. The translation and all other associated documents must be maintained by the submitting company for a period of five (5) years, which is already the established time period for keeping records under the existing RFS program.

Correction of Typographical Errors:

No comments were received on our proposed corrections to typographical errors, thus we are finalizing typographical and grammatical corrections in § 80.1466 as proposed. Specifically, we are amending paragraph (o) to correct a typographical error in the last sentence of the affirmation statement, by changing the citation from § 80.1465 to § 80.1466. We are also amending paragraph (d)(3)(ii) to correct a typographical error. The current regulation cites § 80.65(e)(2)(iii), which does not exist. The correct citation is § 80.65(f)(2)(iii).

V. Amendments to the E15 Misfueling Mitigation Rule

In the NPRM, we proposed several minor corrections and other changes to the E15 misfueling mitigation rule (E15 MMR) found at 40 CFR part 80, subpart N.

A. Changes to § 80.1501—Label

We proposed to correct several minor errors in the description of the E15 label required by the E15 MMR at § 80.1501, including corrections in the dimensions of the label and ensuring that the word ''ATTENTION'' is capitalized. The Agency intended the label required by the regulations to look identical to that pictured in the **Federal Register** notice for the final E15 MMR (*see* 76 FR 44406, 44418, July 25, 2011), but there were some minor typographical errors in the regulations.

We received a number of comments on the E15 label changes, and most were supportive of the corrections to the regulations to make the label consistent with the picture of the E15 label in the E15 MMR. However, some comments expressed concerns about the potential costs to retail stations already lawfully selling E15 with labels produced under the current regulations. We recognize this concern; however, we do not believe that this is an issue since EPA has worked closely with the limited number of retail stations that have lawfully offered E15 to date to ensure that their labels met the intent of the E15 MMR (i.e., were consistent with the label pictured in the E15 MMR).

We also received several comments requesting that EPA make substantive changes to the E15 label (e.g., change the word ''ATTENTION'' to ''WARNING''). The Agency thoroughly explained its rationale for its label

design in the E15 MMR and was not intending to make substantive changes to the E15 label in this rulemaking. We also received comments suggesting additional labeling requirements for blender pumps. We believe that these comments are outside of the scope of this rulemaking.

Therefore, we are finalizing the changes to the E15 labeling regulations at § 80.1501 as proposed.

B. Changes to § 80.1502—E15 Survey

We proposed two changes to the survey requirements found at § 80.1502. First, we proposed to clarify that E15 surveys need to sample for Reid vapor pressure (RVP) only during the high ozone season as defined in § 80.27(a)(2)(ii) or during any time RVP standards apply in any state implementation plan approved or promulgated under the Clean Air Act. EPA did not intend to require RVP sampling and testing during the rest of the year, when RVP standards do not apply.

Second, we proposed to change when the results of surveys that detect potential noncompliance must be reported to the Agency. As originally drafted, the regulations require the independent survey association conducting a survey to notify EPA of potentially noncompliant samples within 24 hours of the laboratory receiving this sample (*see* 76 FR at 44423, July 25, 2011). EPA has since learned that more time may be needed for reporting of noncompliant samples since it may take several days for analysis of the sample to be completed. We are therefore requiring that noncompliant samples be reported to EPA within 24 hours of being analyzed.

Comments received on these two changes to the E15 survey requirements were overwhelmingly supportive. Therefore, EPA is finalizing the changes to the E15 survey requirements in § 80.1502 as proposed.

C. Changes to § 80.1503—Product Transfer Documents

In the NPRM, we proposed certain minor changes to the product transfer document (PTD) requirements found in § 80.1503. Specifically, we proposed to allow the use of product codes for conventional blendstock/gasoline upstream of an ethanol blending facility, since historically, the codes have been allowed to be used for conventional blendstock/gasoline upstream of an ethanol blending facility in other fuels programs. We noted that this was an unintentional omission from the original regulation.

Commenters unanimously supported including language that allowed the use of product codes for conventional blendstock/gasoline upstream of an ethanol blending facility. Some commenters pointed out that maintaining the current language allowing the use of product codes downstream of an ethanol blending facility did not make sense since product codes have not typically been used in that part of the gasoline distribution chain. Therefore, we are finalizing the flexibility for parties upstream of an ethanol blending facility to use product codes and removing the extraneous language for product code use downstream of an ethanol blending facility.

We also received comment on whether this proposed change was in response to a petition for reconsideration from the American Fuel and Petrochemical Manufacturers (AFPM) (formerly the National Petroleum Refiners Association, or NPRA), which raised a number of questions regarding the E15 MMR PTD requirements.[98] Today's regulatory change only addresses one of the questions that AFPM raised regarding the E15 MMR PTD requirements in its petition. Today's action was not meant to address all of the questions raised by AFPM regarding the E15 MMR PTD requirements. It should be noted that most of the questions raised in AFPM's petition did not require changes to the regulations and were simply questions on the implementation and applicability of the E15 MMR requirements. For example, AFPM was unclear on what the wintertime PTD requirements for gasoline/blendstocks upstream of an ethanol blending facility are under the E15 MMR. These types of questions are typically addressed through guidance provided to affected parties (either directly or via guidance letters or the Fuels Program Frequent Questions Web page) and do not necessitate a change to our regulations. However, we may consider further changes to the E15 MMR PTD requirements in a future rulemaking that address some or all of the remaining questions raised in AFPM's petition for reconsideration.

We also sought comment on potential ways of streamlining the PTD language required at § 80.1503. We received one comment that suggested substantial changes to the PTD language requirements. For example, the commenter suggested removing most of the downstream RVP language requirements that were intended to inform retail stations of their summertime RVP requirements. The commenter pointed out that such a streamlining of the PTD requirements in the E15 MMR would significantly reduce compliance costs for industry. We feel that these suggested changes would significantly alter the PTD language in such a way that may no longer carry out our intent, which is to inform parties throughout the gasoline distribution chain all the way down to the retail station of their applicable regulatory requirements. Such changes are outside the scope of today's rulemaking, which includes only a minor technical change to the E15 MMR PTD requirements. Therefore, we are not finalizing such changes at this time. Although we are not engaging in a substantial streamlining of the PTD language required at § 80.1503 in today's action, we may revisit the streamlining of E15 MMR PTD language in a future rulemaking.

D. Changes to § 80.1504—Prohibited Acts

In the NPRM, we proposed a slight rewording of § 80.1504(g) to state that blending E10 that has taken advantage of the statutory 1.0 psi RVP waiver during the summertime RVP control period with a gasoline-ethanol fuel that cannot take advantage of the 1.0 psi RVP waiver (i.e., a fuel that contains more than 10.0 volume percent ethanol (e.g., E15) or less than 9 volume percent ethanol) would be a violation of the E15 MMR. As originally written, the language does not clearly describe the prohibited activity (*see* 76 FR 44435, 44436, July 25, 2011).

We received no direct comments on this specific proposed change. We did, however, receive comments suggesting that we expand the prohibited activities language in § 80.1504 to allow for the better enforcement of ethanol content requirements at blender pumps. The addition of new prohibited activities to § 80.1504 is outside the intended scope of today's action. Therefore we are finalizing the slight rewording of the prohibited activities language of § 80.1504(g) as proposed.

E. Changes to § 80.1500—Definitions

In response to the August 17, 2011 petition for reconsideration submitted by NPRA, now AFPM, which requested the Agency, under CAA section 307(d)(7)(B), reconsider certain portions of the E15 MMR, we granted AFPM's petition for reconsideration on the issue of the definitions of E10 and E15 in the E15 MMR. AFPM expressed concern

[98] See September 15, 2011 letter from AFPM entitled, ''Request for Partial Reconsideration of EPA's ''Misfueling Rule'' 76 FR 44406 (July 25, 2011),'' Docket EPA–HQ–OAR–2012–0401–0041.

that the Agency had defined E10 and E15 in the E15 MMR in a way that would change how ethanol concentrations are determined for regulatory purposes. While EPA did not intend the definitions of E10 and E15 in the E15 MMR to have this effect, we proposed changes to the regulations to avoid this perceived impact. Specifically, we proposed to add a new section, § 80.1509, containing language that clearly states that when ethanol concentrations are measured for compliance testing purposes for 40 CFR part 80, subpart N, the applicable ethanol concentration value will be rounded using the rounding procedures at § 80.9. We also proposed modifications to language throughout 40 CFR part 80, subpart N, to better reflect our intentions in defining E10 and E15 in the E15 MMR, including a small revision to § 80.1508.

Comments received on this issue generally supported EPA's approach to continue to allow the rounding of test results to determine whether fuel samples had adhered to applicable ethanol content samples under § 80.9. One commenter suggested that EPA remove the remaining decimal points to make the point more clearly that rounding applied to the testing of fuels samples for ethanol content. Another commenter argued that making such a change would allow parties to manufacture gasoline-ethanol blended fuels containing more than 10 volume percent ethanol without taking appropriate measures to ensure that vehicles and engines not covered by the E15 partial waiver decisions were not misfueled by gasoline-ethanol blended fuels containing more than 10 volume percent ethanol.

We continue to believe that it is necessary to make our intent clear that parties that blend gasoline-ethanol blended fuels with more than 10 volume percent ethanol and up to 15 volume percent ethanol must adhere to the requirements for such fuels under the E15 MMR. Our approach will continue to enforce ethanol content standards as we have in the past, through the appropriate use of rounding procedures specified in the regulations under § 80.9. We do not believe we need to remove the decimal points from the proposed regulatory text since we were careful to ensure that such language only appeared in places where the blending of gasoline-ethanol blended fuels containing greater than 10 volume percent ethanol would necessitate further action by the party manufacturing such fuel. Therefore, we are finalizing the changes to the definitions of the E15 MMR and the new language under § 80.1509 as proposed. Additionally, in order to remain consistent with requirements for evidence used to determine compliance with requirements in other fuels programs, we are not finalizing the proposed changes to § 80.1508, which covers the evidence responsible parties and the Agency can use to demonstrate compliance with E15 MMR requirements.

VI. Amendments to the Ultra Low Sulfur Diesel (ULSD) Survey

In the NPRM, EPA proposed a reduction in the minimum sample size for the ULSD survey program from 5,250 annual samples to 1,800 samples.[99] We argued that compliance with the ULSD sulfur content standard has been extremely high; less than 1% of the samples have been in violation in recent years, and the use of the statistical formula in the regulations would result in a sampling rate of several hundred samples per quarter for each of the past several years, instead of 5,250 samples required annually. The cost difference between taking several hundred samples a quarter versus taking over 5,000 samples annually is significant. For these reasons we believed that the high compliance rate and the substantial discrepancy between the sampling rate calculated by the formula in the regulations and the minimum sampling size justified our proposal of a minimum annual sampling rate of 1,800 samples.

Public comments received on the proposed reduction in sampling rate were overwhelming supportive. Most comments suggested that EPA reduce the minimum sampling rate for the ULSD program to the proposed rate of 1,800. However, some commenters suggested that we reduce the sample size even further. Consistent with most comments, we are finalizing the proposed rate of 1,800 samples per year. Since the program is based on conducting four quarterly surveys, only about 450 samples are collected to represent all retail stations offering diesel fuel, over 60,000 stations, nationwide each quarter. A further reduction in the sample size may compromise the robustness of the survey program's ability to detect non-compliance, even taking into account today's high compliance rates. Although we acknowledge that a further reduction in the sample size could reduce costs even further, there is a point where the number of samples per year would be so few that the survey would be meaningless relative to robust sampling and testing programs conducted by each refiner individually. We feel that a rate of 1,800 samples strikes the correct balance of ensuring compliance with ULSD standards downstream while controlling costs for branded refiners that choose to utilize the ULSD survey program as an alternative affirmative defense.

Additionally, one commenter, citing high costs, suggested that we remove the alternative affirmative defense altogether. It is important to note that participation in the consortium that conducts the ULSD survey is completely voluntary and the program provides each branded refiner an alternative to conducting individual downstream sampling and testing programs. We believe that as long as there is continued interested by some branded refiners to take advantage of the ULSD survey program alternative affirmative defense, we should maintain the flexibility to allow those parties the ability to conduct such a survey in lieu of individual downstream sampling and testing programs to establish an affirmative defense to potential downstream violations.

Therefore, today we are reducing the minimum annual sampling size for the ULSD survey program from 5,250 samples to 1,800 samples. However, we will continue to closely monitor national ULSD compliance rates and branded refiner interest in maintaining the ULSD survey program to determine whether further reduction in sample sizes is necessary.

VII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is a

[99] The ULSD rule includes a provision that deems branded refiners liable for violations of the ULSD sulfur standard that are found at retail outlets displaying the refiner's brand (40 CFR 80.612). The regulations include defense provisions. One element of a branded refiner's defense to such violations is that it must have a periodic sampling and testing program at the retail level (40 CFR 80.613(b) and (d)). The regulations also set forth an alternative sampling and testing defense element provision for branded refiners. This alternative defense element provision (40 CFR 80.613(e)) allows a branded refiner to meet the company-specific downstream periodic sampling and testing element of its defense by participating in a survey consortium that pays an independent surveyor to sample diesel fuel at retail outlets nationwide. The number of samples that are taken each year is determined by a statistical formula that is based in part on the previous year's compliance rate. In addition, the regulations set a floor of 5,250 samples that must be taken in an annual survey cycle regardless of the sample number that would be calculated using the regulatory formula.

''significant regulatory action'' because it raises novel legal or policy issues. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011) and any changes made in response to OMB recommendations have been documented in the docket for this action.

B. Paperwork Reduction Act

The information collection requirements in this rule have been submitted for approval to the Office of Management and Budget (OMB) under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The Information Collection Request (ICR) document prepared by EPA has been assigned EPA ICR number 2469.01. A supporting statement for the ICR has been placed in the docket. The information collection is described in the following paragraphs. The following existing ICRs are being amended: OMB numbers 2060–0639, 2060–0637, 2060–0640, and 2060–0675).

This action contains recordkeeping and reporting that may affect the following parties under the RFS regulation: RIN generators (producers, importers), obligated parties (refiners), exporters, and parties who own or transact RINs. We estimate that 670 parties may be subject to the information collection. We estimate an annual recordkeeping and reporting burden of 3.1 hours per respondent. This action contains recordkeeping and reporting that may affect the following parties under the E15 regulation: Gasoline refiners, gasoline and ethanol importers, gasoline and ethanol blenders (including terminals and carriers). We estimate that 2,000 respondents may be subject to the information collection. We estimate an annual recordkeeping and reporting burden of 1.3 hours per respondent. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review the instructions; develop, acquire, install, and utilize technology and systems for the purpose of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transit or otherwise disclose the information. Burden is as defined at 5 CFR 1320.3(b).

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR Part 9. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in this final rule.

C. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this action on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. The amendments to the RFS provisions in this final rule allow for additional opportunities for parties to participate in the RFS program by producing qualifying fuel if they choose to, clarify existing provisions, remove the possibility of exemptions for entities that are no longer small entities due to growth in their business, or make relatively minor corrections and modifications to these regulations. The various changes to the E15 misfueling mitigation regulations are relatively minor corrections and should not place any additional burden on small entities. The reduction in the required sample size for the voluntary ULSD survey program should reduce the burden of any small entity that elects to participate in the ULSD survey program.

D. Unfunded Mandates Reform Act

This rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in the aggregate, or the private sector in any one year. We have determined that this action will not result in expenditures of $100 million or more for the above parties and thus, this rule is not subject to the requirements of sections 202 or 205 of UMRA.

This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. It only applies to gasoline, diesel fuel, and renewable fuel producers, importers, distributors and marketers and makes relatively minor corrections and modifications to the RFS and diesel regulations.

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, as specified in Executive Order 13132. This action only applies to gasoline, diesel, and renewable fuel producers, importers, distributors and marketers. Thus, Executive Order 13132 does not apply to this action. In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicited comment on the proposed action from State and local officials.

F. Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments)

This action does not have tribal implications, as specified in Executive Order 13175 (65 FR 67249, November 9, 2000). It applies to gasoline, diesel fuel, and renewable fuel producers, importers, distributors and marketers. This action does not impose any enforceable duties on communities of Indian tribal governments. Tribal governments would be affected only to the extent they purchase and use regulated fuels. Although Executive Order 13175 does not apply to this action, EPA specifically solicited comment from tribal officials in developing this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets EO 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the EO has the potential to influence the regulation. This action is not subject to EO 13045 because it does not establish an environmental standard intended to mitigate health or safety risks.

H. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not a ''significant energy action'' as defined in Executive Order 13211 (66 FR 28355 (May 22, 2001)), because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. This action amends existing regulations related to renewable fuel, E15, and ultra-low sulfur diesel. We have concluded that this rule is not likely to have any adverse energy effects. In fact, we expect this rule may result in positive effects, because many of the changes we are finalizing will facilitate the introduction of new renewable fuels under the RFS program and have come at the suggestion of industry stakeholders.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (''NTTAA''), Public Law 104–113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

The regulations permit the use of an analytical method certified by a voluntary consensus standard body in order for certain producers to comply with applicable registration requirements. Producers of renewable fuel made from energy cane and producers of renewable fuel made using two or more feedstocks converted simultaneously, when at least one of the feedstocks does not have a minimum 75% average adjusted cellulosic content, and at least one of which is a pathway producing RINs with a D code of 3 or a D code of 7 using a process described in § 80.1426(f)(15)(i)(A) or § 80.1426(f)(15)(i)(B), must obtain data used to calculate the cellulosic converted fraction 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. The Agency therefore believes this rulemaking is consistent with the requirements of the NTTAA.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order (EO) 12898 (59 FR 7629, February 16, 1994) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment. These technical amendments do not relax the control measures on sources regulated by the RFS regulations and therefore will not cause emissions increases from these sources.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A Major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is not a ''major rule'' as defined by 5 U.S.C. 804(2). This rule will be effective August 18, 2014.

L. Clean Air Act Section 307(d)

This rule is subject to section 307(d) of the CAA. Section 307(d)(7)(B) provides that ''[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review.'' This section also provides a mechanism for the EPA to convene a proceeding for reconsideration, ''[i]f the person raising an objection can demonstrate to the EPA that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule.'' Any person seeking to make such a demonstration to the EPA should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, William Jefferson Clinton Building, 1200 Pennsylvania Ave., NW., Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Director of the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave. NW., Washington, DC 20460.

VIII. Statutory Provisions and Legal Authority

Statutory authority for this action comes from section 211 of the Clean Air Act, 42 U.S.C. 7545. Additional support for the procedural and compliance related aspects of this rule, including the recordkeeping requirements, comes from sections 114, 208, and 301(a) of the Clean Air Act, 42 U.S.C. 7414, 7542, and 7601(a).

List of Subjects in 40 CFR Part 80

Environmental protection, Administrative practice and procedure, Agriculture, Air pollution control, Confidential business information, Energy, Forest and forest products, Fuel additives, Gasoline, Imports, Motor vehicle pollution, Penalties, Petroleum, Reporting and recordkeeping requirements.

Dated: July 2, 2014.

Gina McCarthy,

Administrator.

For the reasons set forth in the preamble, title 40, chapter I of the Code of Federal Regulations is amended as follows:

PART 80—REGULATION OF FUELS AND FUEL ADDITIVES

■ 1. The authority citation for part 80 continues to read as follows:

Authority: 42 U.S.C. 7414, 7521, 7542, 7545 and 7601(a).

Subpart I—[Amended]

■ 2. Section 80.613 is amended by revising the ''Where'' statement defining the value of ''n'' in paragraph (e)(4)(v)(A) to read as follows:

§ 80.613 What defenses apply to persons deemed liable for a violation of a prohibited act under this subpart?

* * * * *

(e) * * *

(4) * * *

(v) * * *

(A) * * *

Where:

n = minimum number of samples in a year-long survey series. However, in no case shall *n* be larger than 9,600 or smaller than 1,800.

* * * * *

Subpart M—[Amended]

■ 3. Section 80.1401 is amended as follows:

■ a. By adding the definitions of ''Adjusted cellulosic content'', ''Agricultural digester,'' ''Nameplate capacity'', ''Renewable compressed natural gas'', and''Renewable liquefied natural gas'' in alphabetical order.

■ b. By revising the definitions of ''Biogas'', ''Crop residue'', ''Energy cane'', ''Naphtha'', ''Renewable biomass'', and ''Small refinery''.

§ 80.1401 Definitions.

* * * * *

Adjusted cellulosic content means the percent of organic material that is cellulose, hemicellulose, and lignin.

* * * * *

Agricultural digester means an anaerobic digester that processes predominantly cellulosic materials, including animal manure, crop residues, and/or separated yard waste.

* * * * *

Biogas means a mixture of hydrocarbons that is a gas at 60 degrees Fahrenheit and 1 atmosphere of pressure that is produced through the anaerobic digestion of organic matter.

* * * * *

Crop residue means biomass left over from the harvesting or processing of planted crops from existing agricultural land and any biomass removed from existing agricultural land that facilitates crop management (including biomass removed from such lands in relation to invasive species control or fire management), whether or not the biomass includes any portion of a crop or crop plant. Biomass is considered crop residue only if the use of that biomass for the production of renewable fuel has no significant impact on demand for the feedstock crop, products produced from that feedstock crop, and all substitutes for the crop and its products, nor any other impact that would result in a significant increase in direct or indirect GHG emissions.

* * * * *

Energy cane means a complex hybrid in the Saccharum genus that has been bred to maximize cellulosic rather than sugar content. For the purposes of this subpart:

(1) Energy cane excludes the species *Saccharum spontaneum,* but may include hybrids derived from *S. spontaneum* that have been developed and publicly released by USDA; and

(2) Energy cane only includes cultivars that have, on average, at least 75% adjusted cellulosic content on a dry mass basis.

* * * * *

Nameplate capacity means the peak design capacity of a facility for the purposes of registration of a facility under § 80.1450(b)(1)(v)(C).

Naphtha means a blendstock or fuel blending component falling within the boiling range of gasoline which is composed of only hydrocarbons, is commonly or commercially known as naphtha and is used to produce gasoline through blending.

* * * * *

Renewable biomass means each of the following (including any incidental, de minimis contaminants that are impractical to remove and are related to customary feedstock production and transport):

(1) Planted crops and crop residue harvested from existing agricultural land cleared or cultivated prior to December 19, 2007 and that was nonforested and either actively managed or fallow on December 19, 2007.

(2) Planted trees and tree residue from a tree plantation located on non-federal land (including land belonging to an Indian tribe or an Indian individual that is held in trust by the U.S. or subject to a restriction against alienation imposed by the U.S.) that was cleared at any time prior to December 19, 2007 and actively managed on December 19, 2007.

(3) Animal waste material and animal byproducts.

(4) Slash and pre-commercial thinnings from non-federal forestland (including forestland belonging to an Indian tribe or an Indian individual, that are held in trust by the United States or subject to a restriction against alienation imposed by the United States) that is not ecologically sensitive forestland.

(5) Biomass (organic matter that is available on a renewable or recurring basis) obtained from within 200 feet of buildings and other areas regularly occupied by people, or of public infrastructure, in an area at risk of wildfire.

(6) Algae.

(7) Separated yard waste or food waste, including recycled cooking and trap grease, and materials described in § 80.1426(f)(5)(i).

Renewable compressed natural gas (CNG) means biogas or biogas-derived pipeline quality gas that is compressed for use as transportation fuel and meets the definition of renewable fuel.

* * * * *

Renewable liquefied natural gas (LNG) means biogas or biogas-derived pipeline quality gas that goes through the process of liquefaction in which it is cooled below its boiling point, and which meets the definition of renewable fuel.

* * * * *

Small refinery means a refinery for which the average aggregate daily crude oil throughput (as determined by dividing the aggregate throughput for the calendar year by the number of days in the calendar year) does not exceed 75,000 barrels.

* * * * *

■ 4. Section 80.1415 is amended by revising paragraphs (b)(5) and (c)(1) to read as follows:

§ 80.1415 How are equivalence values assigned to renewable fuel?

* * * * *

(b) * * *

(5) 77,000 Btu (lower heating value) of compressed natural gas (CNG) or liquefied natural gas (LNG) shall represent one gallon of renewable fuel with an equivalence value of 1.0.

* * * * *

(c) * * *

(1) The equivalence value for renewable fuels described in paragraph (b)(7) of this section shall be calculated using the following formula:

EV = (R/0.972) * (EC/77,000)

Where:

EV = Equivalence Value for the renewable fuel, rounded to the nearest tenth.

R = Renewable content of the renewable fuel. This is a measure of the portion of a renewable fuel that came from renewable biomass, expressed as a fraction, on an energy basis.

EC = Energy content of the renewable fuel, in Btu per gallon (lower heating value).

* * * * *

■ 5. Section 80.1416 is amended by revising paragraph (d) to read as follows:

§ 80.1416 Petition process for evaluation of new renewable fuels pathways.

* * * * *

(d) A D code must be approved prior to the generation of RINs for the fuel in question. During petition review EPA will evaluate whether a feedstock meets the 75% cellulosic content threshold allowing cellulosic RINs to be generated for the entire fuel volume produced. The Administrator may ask for additional information to complete this evaluation.

* * * * *

■ 6. Section 80.1426 is amended as follows:

■ a. By revising rows K, L, M, N, P, and Q of Table 1 to § 80.1426.

■ b. By adding a new row T to Table 1 to § 80.1426.

■ c. By revising paragraphs (f)(3)(vi), (f)(4)(i)(A)(*2*), (f)(5)(v), (f)(10), and (f)(11).

■ d. By adding new paragraphs (f)(15) and (f)(16).

§ 80.1426 How are RINs generated and assigned to batches of renewable fuel by renewable fuel producers or importers?

* * * * *

(f) * * *

(1) * * *

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
*	*	*	*	*
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; and cellulosic components of annual cover crops.	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; and cellulosic components of annual cover crops.	Any process that converts cellulosic biomass to fuel.	7
M	Renewable gasoline and renewable gasoline blendstock.	Crop residue, slash, pre-commercial thinnings, tree residue, and separated yard waste; biogenic components of separated MSW; cellulosic components of separated food waste; and cellulosic components of annual cover crops.	Catalytic Pyrolysis and Upgrading, Gasification and Upgrading, Thermo-Catalytic Hydrodeoxygenation and Upgrading, Direct Biological Conversion, Biological Conversion and Upgrading utilizing natural gas, biogas, and/or biomass as the only process energy sources providing that process used converts cellulosic biomass to fuel; any process utilizing biogas and/or biomass as the only process energy sources which converts cellulosic biomass to fuel.	3
N	Naphtha	Switchgrass, miscanthus, energy cane, Arundo donax, and Pennisetum purpureum.	Gasification and upgrading processes that converts cellulosic biomass to fuel.	3
*	*	*	*	*
P	Ethanol, renewable diesel, jet fuel, heating oil, and naphtha.	The non-cellulosic portions of separated food waste and non-cellulosic components of annual cover crops.	Any	5
Q	Renewable Compressed Natural Gas, Renewable Liquefied Natural Gas, Renewable Electricity.	Biogas from landfills, municipal wastewater treatment facility digesters, agricultural digesters, and separated MSW digesters; and biogas from the cellulosic components of biomass processed in other waste digesters.	Any	3
*	*	*	*	*
T	Renewable Compressed Natural Gas, Renewable Liquefied Natural Gas, and Renewable Electricity.	Biogas from waste digesters	Any	5

* * * * *

(3) * * *

(vi) If a producer produces a single type of renewable fuel using two or more different feedstocks which are processed simultaneously, and each batch is comprised of a single type of fuel, then the number of gallon-RINs that shall be generated for a batch of renewable fuel and assigned a particular D code shall be determined according to the formulas in Table 4 to this section.

Table 4 to §80.1426
Number of gallon-RINs to assign to batch-RINs with D codes dependent on feedstock

D code to use in batch-RIN	Number of gallon-RINs
D = 3	$V_{RIN,CB} = EV * V_s * \frac{FE_3}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}$
D = 4	$V_{RIN,BBD} = EV * V_s * \frac{FE_4}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}$
D = 5	$V_{RIN,AB} = EV * V_s * \frac{FE_5}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}$
D = 6	$V_{RIN,RF} = EV * V_s * \frac{FE_6}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}$
D = 7	$V_{RIN,CD} = EV * V_s * \frac{FE_7}{FE_3 + FE_4 + FE_5 + FE_6 + FE_7}$

Where:

$V_{RIN,CB}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for a batch of cellulosic biofuel with a D code of 3.

$V_{RIN,BBD}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for a batch of biomass-based diesel with a D code of 4.

$V_{RIN,AB}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for a batch of advanced biofuel with a D code of 5.

$V_{RIN,RF}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for a batch of renewable fuel with a D code of 6.

$V_{RIN,CD}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that shall be generated for a batch of cellulosic diesel with a D code of 7.

EV = Equivalence value for the renewable fuel per § 80.1415.

V_S = Standardized volume of the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

FE_3 = Feedstock energy from all feedstocks whose pathways have been assigned a D code of 3 under Table 1 to this section, or a D code of 3 as approved by the Administrator, in Btu.

FE_4 = Feedstock energy from all feedstocks whose pathways have been assigned a D code of 4 under Table 1 to this section, or a D code of 4 as approved by the Administrator, in Btu.

FE_5 = Feedstock energy from all feedstocks whose pathways have been assigned a D code of 5 under Table 1 to this section, or a D code of 5 as approved by the Administrator, in Btu.

FE_6 = Feedstock energy from all feedstocks whose pathways have been assigned a D code of 6 under Table 1 to this section, or a D code of 6 as approved by the Administrator, in Btu.

FE_7 = Feedstock energy from all feedstocks whose pathways have been assigned a D code of 7 under Table 1 to this section, or a D code of 7 as approved by the Administrator, in Btu.

Feedstock energy values, FE, shall be calculated according to the following formula:

FE = M * (1 − m) * CF * E

Where:

FE = Feedstock energy, in Btu.

M = Mass of feedstock, in pounds, measured on a daily or per-batch basis.

m = Average moisture content of the feedstock, in mass percent.

CF = Converted Fraction in annual average mass percent, except as otherwise provided by § 80.1451(b)(1)(ii)(U), representing that portion of the feedstock that is converted into renewable fuel by the producer.

E = Energy content of the components of the feedstock that are converted to renewable fuel, in annual average Btu/lb, determined according to paragraph (f)(7) of this section.

(4) * * *

(i) * * *

(A) * * *

(*2*) The value of FE for use in paragraph (f)(4)(i)(A)(*1*) of this section shall be calculated from the following formula:

FE = M * (1 − m) * CF * E

Where:

FE = Feedstock energy, in Btu.

M = Mass of feedstock, in pounds, measured on a daily or per-batch basis.

m = Average moisture content of the feedstock, in mass percent.

CF = Converted Fraction in annual average mass percent, except as otherwise provided by § 80.1451(b)(1)(ii)(U), representing that portion of the feedstock that is converted into transportation fuel, heating oil, or jet fuel by the producer.

E = Energy content of the components of the feedstock that are converted to fuel, in annual average Btu/lb, determined according to paragraph (f)(7) of this section.

* * * * *

(5) * * *

(v) The number of cellulosic biofuel gallon-RINs that shall be generated for the cellulosic portion of a batch of renewable fuel derived from separated MSW as defined in paragraph (f)(5)(i)(C) of this section shall be determined according to the following formula:

V_{RIN} = EV * V_S * R

Where:

V_{RIN} = RIN volume, in gallons, for use in determining the number of cellulosic biofuel gallon-RINs that shall be generated for the batch.

EV = Equivalence value for the batch of renewable fuel per § 80.1415.

V_S = Standardized volume of the batch of renewable fuel at 60 °F, in gallons, calculated in accordance with paragraph (f)(8) of this section.

R = The calculated non-fossil fraction of the fuel as measured by a carbon-14 dating test method as provided in paragraph (f)(9) of this section, except that for

biogas-derived fuels made from separated MSW, no testing is required and R = 1.

* * * * *

(10)(i) For purposes of this section, electricity that is only distributed via a closed, private, non-commercial system is considered renewable fuel and RINs may be generated if all of the following apply:

(A) The electricity is produced from renewable biomass and qualifies for a D code in Table 1 to this section or has received approval for use of a D code by the Administrator.

(B) The RIN generator has documentation for the sale, if applicable, and use of a specific quantity of renewable electricity as transportation fuel, or has obtained affidavits from all parties selling or using the electricity as transportation fuel.

(C) The electricity is used as a transportation fuel and for no other purposes.

(ii) For purposes of this section, CNG or LNG produced from biogas that is only distributed via a closed, private, non-commercial system is considered renewable fuel for which RINs may be generated if all of the following apply:

(A) The CNG/LNG is produced from renewable biomass and qualifies for a D code in Table 1 to this section or has received approval for use of a D code by the Administrator.

(B) The RIN generator has entered into a written contract for the sale or use of a specific quantity of CNG/LNG to be used as transportation fuel, or obtained affidavits from all parties selling or using the CNG/LNG as transportation fuel.

(C) The CNG/LNG is used as a transportation fuel and for no other purposes.

(iii) A producer of electricity that is generated by co-firing a combination of renewable biomass and fossil fuel may generate RINs only for the portion attributable to the renewable biomass, using the procedure described in paragraph (f)(4) of this section.

(11)(i) For purposes of this section, electricity that is introduced into a commercial distribution system (transmission grid) is considered renewable fuel for which RINs may be generated if all of the following apply:

(A) The electricity is produced from renewable biomass and qualifies for a D code in Table 1 of this section or has received approval for use of a D code by the Administrator.

(B) The RIN generator has documentation for the sale and use of a specific quantity of renewable electricity as transportation fuel, or has obtained affidavits from all parties selling or using the electricity as transportation fuel.

(C) The quantity of electricity for which RINs were generated was sold for use as transportation fuel and for no other purpose.

(D) The renewable electricity was loaded onto and withdrawn from a physically connected transmission grid.

(E) The amount of electricity sold for use as transportation fuel corresponds to the amount of electricity derived from biogas that was placed into the commercial distribution system.

(F) No other party relied upon the renewable electricity for the creation of RINs.

(ii) For purposes of this section, CNG or LNG produced from biogas that is introduced into a commercial distribution system is considered renewable fuel for which RINs may be generated if all the following apply:

(A) The fuel is produced from renewable biomass and qualifies for a D code in Table 1 to this section or has received approval for use of a D code by the Administrator.

(B) The RIN generator has entered into a written contract for the sale or use of a specific quantity of renewable CNG/LNG, taken from a commercial distribution system (e.g., physically connected pipeline, barge, truck, rail), for use as a transportation fuel, or has obtained affidavits from all parties selling or using the CNG/LNG taken from a commercial distribution system as a transportation fuel.

(C) The quantity of CNG/LNG for which RINs were generated was sold for use as transportation fuel and for no other purposes.

(D) The biogas/CNG/LNG was injected into and withdrawn from the same commercial distribution system.

(E) The biogas/CNG/LNG that is ultimately withdrawn from the commercial distribution system for use as transportation fuel is withdrawn in a manner and at a time consistent with the transport of the biogas/CNG/LNG between the injection and withdrawal points.

(F) The volume and heat content of biogas/CNG/LNG injected into a pipeline and the volume of biogas/CNG/LNG withdrawn to make a transportation fuel are measured by continuous metering.

(G) The amount of fuel sold for use as transportation fuel corresponds to the amount of fuel derived from biogas that was placed into the commercial distribution system.

(H) No other party relied upon the volume of biogas/CNG/LNG for the creation of RINs.

(iii) For renewable electricity that is generated by co-firing a combination of renewable biomass and fossil fuel, the producer may generate RINs only for the portion attributable to the renewable biomass, using the procedure described in paragraph (f)(4) of this section.

* * * * *

(15) *Application of formulas in paragraph (f)(3)(vi) of this section to certain producers generating D3 or D7 RINs.*

(i) If a producer seeking to generate D code 3 or D code 7 RINs produces a single type of renewable fuel using two or more feedstocks converted simultaneously, and at least one of the feedstocks does not have a minimum 75% average adjusted cellulosic content, one of the following additional requirements apply:

(A) If the producer is using a thermochemical process to convert cellulosic biomass into cellulosic biofuel, the producer is subject to additional registration requirements under § 80.1450(b)(1)(xiii)(A).

(B) If the producer is using any process other than a thermochemical process, or is using a combination of processes, the producer is subject to additional registration requirements under § 80.1450(b)(1)(xiii)(B) and reporting requirements under § 80.1451(b)(1)(ii)(U).

(ii) [Reserved]

(16) *Renewable fuel produced from crop residue.* Producers generating RINs for qualifying renewable fuel utilizing crop residue as feedstock under Pathway K or Pathway L must meet all of the following conditions (in addition to any other applicable requirements):

(i) Registration requirements under § 80.1450(b)(1)(xv).

(ii) Reporting requirements under § 80.1451(b)(1)(ii)(V).

(iii) Recordkeeping requirements under § 80.1454(s).

* * * * *

■ 7. Section 80.1440 is amended as follows:

■ a. By revising the section heading.

■ b. By revising paragraph (a).

■ c. By revising paragraph (d).

■ d. By revising paragraph (e).

§ 80.1440 What are the provisions for blenders who handle and blend less than 250,000 gallons of renewable fuel per year?

(a) 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.

* * * * *

(d) Renewable fuel blenders who handle and blend less than 250,000 gallons of renewable fuel per year and delegate their RIN-related responsibilities under paragraph (b) of this section must register pursuant to § 80.1450(e), and may not own RINs.

(e) Renewable fuel blenders who handle and blend less than 250,000 gallons of renewable fuel per year and who do not opt to delegate their RIN-related responsibilities, or own RINs, will be subject to all requirements stated in paragraph (b) of this section, and all other applicable requirements of this subpart M.

* * * * *

■ 8. Section 80.1441 is amended by adding paragraph (e)(2)(iii) to read as follows:

§ 80.1441 Small refinery exemption.

* * * * *

(e) * * *

(2) * * *

(iii) In order to qualify for an extension of its small refinery exemption, a refinery must meet the definition of ''small refinery'' in § 80.1401 for the most recent full calendar year prior to seeking an extension and must be projected to meet the definition of ''small refinery'' in § 80.1401 for the year or years for which an exemption is sought. Failure to meet the definition of small refinery for any calendar year for which an exemption was granted would invalidate the exemption for that calendar year.

* * * * *

■ 9. Section 80.1450 is amended as follows:

■ a. By revising paragraph (b)(1)(ii).

■ b. By revising paragraphs (b)(1)(v)(C) and (b)(1)(v)(D), and by adding paragraph (b)(1)(v)(E).

■ c. By adding and reserving paragraph (b)(1)(xii).

■ d. By adding paragraphs (b)(1)(xiii) through (xv).

■ e. By adding paragraph (h).

■ f. By adding paragraph (i).

§ 80.1450 What are the registration requirements under the RFS program?

* * * * *

(b) * * *

(1) * * *

(ii) A description of the facility's renewable fuel or ethanol production processes.

(A) 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.

(B) [Reserved]

* * * * *

(v) * * *

(C)(*1*) For all facilities, copies of documents demonstrating each facility's actual peak capacity 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.

(*2*) For facilities not claiming the exemption described in § 80.1403(c) or (d) which are exempt from air permit requirements and for which insufficient production records exist to establish actual peak capacity, copies of documents demonstrating the facility's nameplate capacity, as defined in § 80.1401.

(D) For all facilities producing renewable electricity or other renewable fuel from biogas, submit all relevant information in § 80.1426(f)(10) or (11), including:

(*1*) Copies of all contracts or affidavits, as applicable, that follow the track of the biogas/CNG/LNG or renewable electricity from its original source, to the producer that processes it into renewable fuel, and finally to the end user that will actually use the renewable electricity or the renewable CNG/LNG for transportation purposes.

(*2*) Specific quantity, heat content, and percent efficiency of transfer, as applicable, and any conversion factors, for the renewable fuel derived from biogas.

(E) Any other records as requested by the Administrator.

* * * * *

(xiii) (A) A producer of renewable fuel seeking to generate D code 3 or D code 7 RINs, or a foreign ethanol producer seeking to have its product sold as cellulosic biofuel after it is denatured, who intends to produce a single type of fuel using two or more feedstocks converted simultaneously, where at least one of the feedstocks does not have a minimum 75% average adjusted cellulosic content, and who uses only a thermochemical process to convert feedstock into renewable fuel, must provide all the following:

(*1*) Data showing the average adjusted cellulosic content of the feedstock(s) to be used to produce fuel, based on the average of at least three representative samples. Cellulosic content data must come from 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. Samples must be of representative feedstock from the primary feedstock supplier that will provide the fuel producer with feedstock subsequent to registration.

(*2*) For producers who want to use a new feedstock(s) after initial registration, updates to their registration under paragraph (d) of this section indicating the average adjusted cellulosic content of the new feedstock.

(*3*) For producers already registered as of August 18, 2014, to produce a single type of fuel that qualifies for D code 3 or D code 7 RINs (or would do so after denaturing) using two or more feedstocks converted simultaneously using only a thermochemical process, the information specified in this paragraph (b)(1)(xiii)(A) shall be provided at the next required registration update under paragraph (d) of this section.

(B) A producer of renewable fuel seeking to generate D code 3 or D code 7 RINs, or a foreign ethanol producer seeking to have its product sold as cellulosic biofuel after it is denatured, who intends to produce a single type of fuel using two or more feedstocks converted simultaneously, where at least one of the feedstocks does not have a minimum 75% adjusted cellulosic content, and who uses a process other than a thermochemical process or a combination of processes to convert feedstock into renewable fuel, must provide all the following:

(*1*) The expected overall fuel yield, calculated as the total volume of fuel produced per batch (e.g., cellulosic biofuel plus all other fuel) divided by the total feedstock mass per batch on a dry weight basis (e.g., cellulosic feedstock plus all other feedstocks).

(*2*) The cellulosic Converted Fraction (CF) that will be used for generating RINs under § 80.1426(f)(3)(vi).

(*3*) Chemical analysis data supporting the calculated cellulosic 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 cellulosic 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.

(*5*) For producers already registered as of August 18, 2014, to produce a single type of fuel that qualifies for D code 3 or D code 7 RINs (or would do so after denaturing) using two or more feedstocks converted simultaneously using a combination of processes or a process other than a thermochemical process, the information specified in this paragraph (b)(1)(xiii)(B) shall be provided at the next required registration update under paragraph (d) of this section.

(xiv) For a producer of cellulosic biofuel made from energy cane, or a foreign renewable fuel producer making ethanol from energy cane and seeking to have it sold after denaturing as cellulosic biofuel, provide all of the following:

(A) Data showing that the average adjusted cellulosic content of each cane cultivar they intend to use is at least 75%, based on the average of at least three representative samples of each cultivar. Cultivars must be grown under normal growing conditions and consistent with acceptable farming practices. Samples must be of feedstock from a feedstock supplier that the fuel producer intends to use to supply feedstock for their production process and must represent the feedstock supplier's range of growing conditions and locations. Cellulosic content data must come from 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.

(B) Producers that want to change or add new cultivar(s) after initial registration must update their registration and provide EPA with data in accordance with paragraph (d) of this section demonstrating that the average adjusted cellulosic content for any new cultivar is at least 75%. Cultivars that do not meet this requirement are considered sugarcane for purposes of Table 1 to § 80.1426.

(xv) For a producer of cellulosic biofuel made from crop residue or a foreign renewable fuel producer making ethanol from crop residue and seeking to have it sold after denaturing as cellulosic biofuel, provide all the following information:

(A) A list of all feedstocks the producer intends to utilize as crop residue.

(B) A written justification which explains why each feedstock a producer lists according to paragraph (b)(1)(xv)(A) of this section meets the definition of ''crop residue'' per § 80.1401.

(C) For producers already registered as of August 18, 2014 to produce a renewable fuel using crop residue, the information specified in this paragraph (b)(1)(xv) shall be provided at the next required registration update under paragraph (d) of this section.

* * * * *

(h) *Deactivation of company registration.* (1) EPA may deactivate a company's registration, using the process in paragraph (h)(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 has failed to comply with the registration requirements of this section.

(iii) The company has failed to submit any required report within thirty days of the required submission date under § 80.1451.

(iv) The attest engagement required under § 80.1454 has not been received within thirty days of the required submission date.

(2) EPA will use the following process whenever it decides to deactivate the registration of a company:

(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) 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 whose registration has been deactivated wishes to re-register, they may initiate that process by submitting a new registration, consistent with paragraphs (a) through (c) of this section.

(i) *Registration procedures.* (1) Registration shall be on forms, and following policies, established by the Administrator.

(2) English language registrations—Any document submitted to EPA under this section must be submitted in English, or shall include an English translation.

10. Section 80.1451 is amended as follows:

■ a. By redesignating paragraph (b)(1)(ii)(U) as paragraph (b)(1)(ii)(W).

■ b. By adding a new paragraph (b)(1)(ii)(U).

■ c. By adding paragraph (b)(1)(ii)(V).

■ d. By adding and reserving paragraph (i).

■ e. By adding paragraph (j).

§ 80.1451 What are the reporting requirements under the RFS program?

* * * * *

(b) * * *

(1) * * *

(ii) * * *

(U) Producers generating D code 3 or D code 7 RINs for fuel derived from feedstocks other than biogas (including through pathways listed in rows K, L, M, and N of Table 1 to § 80.1426), and that was produced from two or more feedstocks converted simultaneously, at least one of which has less than 75% average adjusted cellulosic content, and using a combination of processes or a process other than a thermochemical process or a combination of processes shall report all of the following:

(*1*) The cellulosic converted fraction as determined by collecting new representative process data and performing the same chemical analysis method accepted at registration. Producers shall calculate this information on an annual basis or within 10 business days of generating every 500,000 gallons of cellulosic biofuel, whichever is more frequent, and report quarterly. Reports shall include all values used to calculate feedstock energy according to § 80.1426(f)(3)(vi). If new data shows that the cellulosic Converted Fraction is different than previously calculated, the formula used to generate RINs under § 80.1426(f)(3) must be updated as soon as practical but no later than 5 business days after the producer

receives the updated data. If new testing data results in a change to the cellulosic Converted Fraction, only RINs generated after the new testing data were received, subject to the 5-day allowance, would be affected.

(*2*) If the cellulosic Converted Fraction deviates from the previously calculated cellulosic Converted Fraction by 10% or more then the producer must notify EPA within 5 business days of receiving the new data and must adjust the formula used to generate RINs under § 80.1426(f)(3) for all fuel generated as soon as practical but no later than 5 business days after the producer receives the new data. If new testing data results in a change to the cellulosic Converted Fraction, only RINs generated after the new testing data were received, subject to the 5-day allowance, would be affected.

(V) Producers of renewable fuel using crop residue as a feedstock shall report all of the following according to the schedule specified in paragraph (f)(2) of this section:

(*1*) The specific feedstock(s) utilized to produce renewable fuel under a pathway allowing the use of crop residue as feedstock.

(*2*) The total quantity of each specific feedstock used to produce renewable fuel.

(*3*) The total amount of qualifying renewable fuel produced under the crop residue pathway(s) in that quarter.

* * * * *

(j) *English language reports.* Any document submitted to EPA under this section must be submitted in English, or shall include an English translation.

■ 11. Section 80.1454 is amended as follows:

■ a. By revising paragraph (b)(4)(i).

■ b. By adding and reserving paragraph (b)(9).

■ c. By adding paragraph (b)(10).

■ d. By revising paragraph (f)(3)(i).

■ e. By revising paragraph (k)(1).

■ f. By adding and reserving paragraphs (q) and (r).

■ g. By adding a new paragraph (s).

■ h. By adding a new paragraph (t).

§ 80.1454 What are the recordkeeping requirements under the RFS program?

* * * * *

(b) * * *

(4) * * *

(i) A list of the RINs owned, purchased, sold, separated, retired, or reinstated.

* * * * *

(10) Records related to any volume of renewable fuel where RINs were not generated by the renewable fuel producer or importer pursuant to § 80.1426(c).

* * * * *

(f) * * *

(3) * * *

(i) A list of the RINs owned, purchased, sold, separated, retired, or reinstated.

* * * * *

(k)(1) Biogas/CNG/LNG and electricity in pathways involving feedstocks other than grain sorghum. A renewable fuel producer that generates RINs for renewable CNG, renewable LNG or renewable electricity pursuant to § 80.1426(f)(10) or (11), or that uses process heat from biogas to produce renewable fuel pursuant to § 80.1426(f)(12) shall keep all of the following additional records:

(i) Documentation recording the sale of renewable CNG, renewable LNG or renewable electricity for use as transportation fuel relied upon in § 80.1426(f)(10), § 80.1426(f)(11), or for use of biogas for process heat to make renewable fuel as relied upon in § 80.1426(f)(12) and the transfer of title of the biogas/CNG/LNG or renewable electricity from the point of biogas production to the facility which sells or uses the fuel for transportation purposes.

(ii) Documents demonstrating the volume and energy content of biogas/CNG/LNG, or kilowatts of renewable electricity, relied upon under § 80.1426(f)(10) that was delivered to the facility which sells or uses the fuel for transportation purposes.

(iii) Documents demonstrating the volume and energy content of biogas/CNG/LNG, or kilowatts of renewable electricity, relied upon under § 80.1426(f)(11), or biogas relied upon under § 80.1426(f)(12) that was placed into the commercial distribution.

(iv) Documents demonstrating the volume and energy content of biogas relied upon under § 80.1426(f)(12) at the point of distribution.

(v) Affidavits, EPA-approved documentation, or data from a real-time electronic monitoring system, confirming that the amount of the biogas/CNG/LNG or renewable electricity relied upon under § 80.1426(f)(10) and (11) was used for transportation purposes only, and for no other purpose. The RIN generator shall obtain affidavits, or monitoring system data under this paragraph (k), at least once per calendar quarter.

(vi) The biogas or renewable electricity producer's Compliance Certification required under Title V of the Clean Air Act.

(vii) Any other records as requested by the Administrator.

* * * * *

(s) Producers of renewable fuel using crop residue shall keep records of all of the following:

(1) The specific crop residue feedstock(s) utilized to produce renewable fuel for each batch of renewable fuel produced.

(2) The total quantity of each specific crop residue feedstock used for each batch.

(3) Total amount of fuel produced under the crop residue pathway for each batch.

(t) *English language records.* Any document requested by the Administrator under this section must be submitted in English, or shall include an English translation.

■ 12. Section 80.1463 is amended by adding paragraph (d) to read as follows:

§ 80.1463 What penalties apply under the RFS program?

* * * * *

(d) Any person liable under § 80.1461(a) for a violation of § 80.1460(b)(1) through (4) or (b)(6) is subject to a separate day of violation for each day that an invalid RIN remains available for an obligated party or renewable fuel exporter to demonstrate compliance with the RFS program.

Subpart N—[Amended]

■ 13. Section 80.1500 is amended by revising the definitions of ''E10'', ''E15'', and ''EX'' to read as follows:

§ 80.1500 Definitions.

* * * * *

E10 means a gasoline-ethanol blend that contains at least 9 and no more than 10 volume percent ethanol.

E15 means a gasoline-ethanol blend that contains greater than 10 volume percent ethanol and not more than 15 volume percent ethanol.

EX means a gasoline–ethanol blend that contains less than 9 volume percent ethanol where X equals the maximum volume percent ethanol in the gasoline-ethanol blend.

* * * * *

■ 14. Section 80.1501 is amended as follows:

■ a. By revising the section heading.

■ b. By revising paragraph (a) introductory text.

■ c. By revising paragraphs (b)(3)(i), (b)(3)(iv), and (b)(4)(ii).

§ 80.1501 What are the labeling requirements that apply to retailers and wholesale purchaser-consumers of gasoline-ethanol blends that contain greater than 10 volume percent ethanol and not more than 15 volume percent ethanol?

(a) Any retailer or wholesale purchaser-consumer who sells, dispenses, or offers for sale or dispensing E15 shall affix the following conspicuous and legible label to the fuel dispenser:

* * * * *

(b) * * *

(3) * * *

(i) The word ''ATTENTION'' shall be capitalized in 20-point, orange, 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.

* * * * *

(iv) The words ''Use only in'' shall be in 20-point, left-justified, black, Helvetica Bold font in the bottom 1.875 inches of the label.

* * * * *

(4) * * *

(ii) The background of the bottom 1.875 inches of the label shall be orange.

* * * * *

■ 15. Section 80.1502 is amended as follows:

■ a. By revising paragraph (b)(1).

■ b. By revising paragraphs (b)(3)(iii)(A) and (b)(3)(iv) introductory text.

■ c. By revising paragraphs (b)(4)(iv)(B) and (b)(4)(v)(A).

■ d. By revising paragraphs (c)(4), (c)(6), and (c)(7).

■ e. By revising paragraphs (d)(3) and (d)(4).

§ 80.1502 What are the survey requirements related to gasoline-ethanol blends?

* * * * *

(b) * * *

(1) To comply with the requirements under this paragraph (b), any gasoline refiner, gasoline importer, ethanol blender, ethanol producer, or ethanol importer who manufactures, introduces into commerce, sells or offers for sale E15, gasoline, blendstock for oxygenate blending, ethanol, or gasoline-ethanol blend intended for use in or as E15 must participate in a consortium which arranges to have an independent survey association conduct a statistically valid program of compliance surveys pursuant to a survey program plan which has been approved by EPA, in accordance with the requirements of paragraphs (b)(2) through (b)(5) of this section.

* * * * *

(3) * * *

(iii) * * *

(A) Samples collected at retail outlets shall be shipped the same day the samples are collected via ground service to the laboratory and analyzed for oxygenate content. Samples collected at a dispenser labeled E15 in any manner, or at a tank serving such a dispenser, shall also be analyzed for RVP during the high ozone season defined in § 80.27(a)(2)(ii) or any SIP approved or promulgated under sections 110 or 172 of the Clean Air Act. Such analysis shall be completed within 10 days after receipt of the sample in the laboratory. Nothing in this section shall be interpreted to require RVP testing of a sample from any dispenser or tank serving it unless the dispenser is labeled E15 in any manner.

* * * * *

(iv) In the case of any test that yields a result that does not match the label affixed to the product (e.g., a sample greater than 15 volume percent ethanol dispensed from a fuel dispenser labeled as ''E15'' or a sample containing greater than 10 volume percent ethanol and not more than 15 volume percent ethanol dispensed from a fuel dispenser not labeled as ''E15''), or the RVP standard of § 80.27(a)(2) or any SIP approved or promulgated under sections 110 or 172 of the Clean Air Act, 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:

* * * * *

(4) * * *

(iv) * * *

(B) In the case of any retail outlet from which a sample of gasoline was collected during a survey and determined to have an ethanol content that does not match the fuel dispenser label (e.g., a sample greater than 15 volume percent ethanol dispensed from a fuel dispenser labeled as ''E15'' or a sample with greater than 10 volume percent ethanol and not more than 15 volume percent ethanol dispensed from a fuel dispenser not labeled as ''E15'') or determined to have a dispenser containing fuel whose RVP does not comply with § 80.27(a)(2) or any SIP approved or promulgated under sections 110 or 172 of the Clean Air Act, that retail outlet shall be included in the subsequent survey.

* * * * *

(v) * * *

(A) The minimum number of samples to be included in the survey plan for each calendar year shall be calculated as follows:

$$n = \left\{\left[\left(Z_{\alpha} + Z_{\beta}\right)\right]^2 \Big/ \left(4 * \left[arc\sin\left(\sqrt{\phi_1}\right) - arc\sin\left(\sqrt{\phi_0}\right)\right]^2\right)\right\} * St_n * F_a * F_b * Su_n$$

Where:

n = Minimum number of samples in a year-long survey series.

However, in no case shall n be smaller than 7,500.

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_o = The underlying proportion of non-compliant stations in a sample. For the first survey plan, φ_o will be 2.3%. For subsequent survey plans, φ_o will be the average of the proportion of stations found to be non-compliant over the previous four surveys.

St_n = Number of sampling strata. For purposes of this survey program, St_n equals 3.

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 retail outlet with test results exceeding the labeled amount (e.g., a sample greater than 15 volume percent ethanol dispensed from a fuel dispenser labeled as ''E15'', a sample with greater than 10 volume percent ethanol and not more than 15 volume percent ethanol dispensed from a fuel dispenser not labeled as ''E15''), or a sample dispensed from a fuel dispenser labeled as ''E15'' with greater than the applicable seasonal and geographic RVP pursuant to § 80.27, 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.

* * * * *

(c) * * *

(4) The survey program plan must be sent to the following address: Director, Compliance Division, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave. NW. Mail Code 6506J, Washington, DC 20460.

* * * * *

(6) The approving official for a survey plan under this section is the Director of the Compliance Division, Office of Transportation and Air Quality.

(7) Any notifications or reports required to be submitted to EPA under this section must be directed to the official designated in paragraph (c)(4) of this section.

(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 to be sent to the official designated in paragraph (c)(4) of this section.

(4) For subsequent years in which a survey program will be conducted, 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 (c)(4) of this section.

* * * * *

■ 16. Section 80.1503 is amended as follows:

■ a. By revising paragraphs (a)(1)(vi)(B) and (a)(1)(vi)(C).

■ b. By revising paragraph (a)(2).

■ c. By adding paragraph (a)(3).

■ d. By revising paragraphs (b)(1)(vi)(B) through (D).

§ 80.1503 What are the product transfer document requirements for gasoline-ethanol blends, gasolines, and conventional blendstocks for oxygenate blending subject to this subpart?

(a) * * *

(1) * * *

(vi) * * *

(B) For gasoline designed for the special provisions for gasoline-ethanol blends in § 80.27(d)(2), information about the ethanol content and RVP in paragraphs (a)(1) through (a)(3) of this section, with insertions as indicated:

(*1*) ''Suitable for the special RVP provisions for ethanol blends that contain between 9 and 10 vol % ethanol.''.

(*2*) ''The RVP of this blendstock/gasoline for oxygenate blending does not exceed [Fill in appropriate value] psi.''.

(*3*) ''The use of this blendstock/gasoline to manufacture a gasoline-ethanol blend containing anything other than between 9 and 10 volume percent ethanol may cause a summertime RVP violation.''.

(C) For gasoline not described in paragraph (a)(1)(vi)(B) of this section, information regarding the suitable ethanol content, stated in the following format: ''Suitable for blending with ethanol at a concentration of no more than 15 vol % ethanol.''.

(2) The requirements in paragraph (a)(1) of this section do not apply to reformulated gasoline blendstock for oxygenate blending, as defined in § 80.2(kk), which is subject to the product transfer document requirements of §§ 80.69 and 80.77.

(3) Except for transfers to truck carriers, retailers, or wholesale purchaser-consumers, product codes may be used to convey the information required under paragraph (a)(1) of this section if such codes are clearly understood by each transferee.

(b) * * *

(1) * * *

(vi) * * *

(B) For gasoline containing less than 9 volume percent ethanol, the following statement: ''EX—Contains up to X% ethanol. The RVP does not exceed [fill in appropriate value] psi.'' The term X refers to the maximum volume percent ethanol present in the gasoline.

(C) For gasoline containing between 9 and 10 volume percent ethanol (E10), the following statement: ''E10: Contains between 9 and 10 vol % ethanol. The RVP does not exceed [fill in appropriate value] psi. The 1 psi RVP waiver applies to this gasoline. Do not mix with gasoline containing anything other than between 9 and 10 vol % ethanol.''.

(D) For gasoline containing greater than 10 volume percent and not more than 15 volume percent ethanol (E15), the following statement: ''E15: Contains up to 15 vol % ethanol. The RVP does not exceed [fill in appropriate value] psi.''.

* * * * *

■ 17. Section 80.1504 is amended by revising paragraphs (a)(1), (a)(3), (b) through (e), and (g) to read as follows:

§ 80.1504 What acts are prohibited under this subpart?

* * * * *

(a)(1) Sell, introduce, cause or permit the sale or introduction of gasoline containing greater than 10 volume percent ethanol (i.e., greater than E10) into any model year 2000 or older light-duty gasoline motor vehicle, any heavy-duty gasoline motor vehicle or engine, any highway or off-highway motorcycle, or any gasoline-powered nonroad engines, vehicles or equipment.

* * * * *

(3) Be prohibited from manufacturing, selling, introducing, or causing or allowing the sale or introduction of gasoline containing greater than 10 volume percent ethanol into any flex-fuel vehicle, notwithstanding paragraphs (a)(1) and (a)(2) 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 § 80.1501.

(c) Fail to fully or timely implement, or cause a failure to fully or timely implement, an approved survey required under § 80.1502.

(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 § 80.1503.

(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 § 80.1503(a)(1)(vi) or (b)(1)(vi).

(2) No person shall produce a fuel designated as E10 by blending ethanol and gasoline in a manner designed to produce a fuel that contains less than 9.0 or more than 10.0 volume percent ethanol.

(3) No person shall produce a fuel designated as E15 by blending ethanol and gasoline in a manner designed to produce a fuel that contains less than 10.0 volume percent ethanol or more than 15.0 volume percent ethanol.

* * * * *

(g) For gasoline during the regulatory control periods, combine any gasoline-ethanol blend that qualifies for the 1 psi allowance under the special regulatory treatment as provided by § 80.27(d) applicable to 9–10 volume percent gasoline-ethanol blends with any gasoline containing less than 9 volume percent ethanol or more than 10 volume percent ethanol up to a maximum of 15 volume percent ethanol.

* * * * *

■ 18. A new § 80.1509 is added to subpart N to read as follows:

§ 80.1509 Rounding a test result for purposes of this subpart N.

The provisions of § 80.9 apply for purposes of determining the ethanol content of a gasoline-ethanol blend under this subpart.

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