lifecycle GHG emissions could be given higher value. However, we determined that there was too much uncertainty at that time in the available information and modeling tools, and we anticipated a need to update the equivalence values periodically as the science evolved. Ultimately, we determined that, in light of the statute's requirement that qualifying renewable fuel be ''used to replace or reduce the quantity of fossil fuel present in a transportation fuel,'' volumetric energy content was the appropriate basis for equivalence values, stating that ''fossil fuels such as gasoline or diesel are only replaced or reduced to the degree that the energy they contain is replaced or reduced.''

We also noted in the 2007 rule that denatured fuel ethanol was likely to be the predominant biofuel expected to be used to meet the statutory volume targets under the RFS1 program. Thus, in an effort to establish a simple and stable program, we opted to use the energy content of renewable fuels as the basis of equivalence values and to designate denatured fuel ethanol as the baseline gallon of renewable fuel. Under this structure, credits for renewable fuels under the RFS program have been determined based on their energy content relative to denatured fuel ethanol; specifically, equivalence values are based on the ratio of a given biofuel's volumetric energy content relative to the volumetric energy content of denatured fuel ethanol. The regulations specify the equivalence values for a number of renewable fuels that we expected would be used.[277] Table VIII.G.1–1 shows the energy content and equivalence values (statutory gallons, or RINs) for several liquid renewable fuels.

TABLE VIII.I.1–1—RIN EQUIVALENCE VALUES FOR VARIOUS LIQUID RENEWABLE FUELS

Fuel type	Energy content (Btu/gal)	Equivalence value
Ethanol	77,000	1.0
Biodiesel	115,000	1.5
Renewable diesel	130,000	1.7
Butanol	100,000	1.3

For renewable fuels that the regulations do not provide an equivalence value, the regulations provide a formula for calculating the equivalence value.

The use of denatured fuel ethanol as the baseline gallon of renewable fuel for the RFS program provides a convenient and straightforward way to determine the equivalence value for all biofuels, including non-liquid biofuels. That is, 77,000 Btu of any biofuel can generate 1 RIN for purposes of compliance with the applicable standards under the RFS program. For renewable natural gas with an energy density of 1,000 Btu per cubic foot, one gallon of ethanol is equivalent to 77 cubic feet. This same basis applies to electricity by dividing 77,000 Btu per gallon by 3,412 Btu per kWh to arrive at an equivalence value of 22.6 kWh per statutory gallon.

While the energy content-based equivalence values provide the same credit value for each fuel on an energy equivalent basis, they then also provide different values on a volumetric basis. Thus, they have a first order impact on the revenue renewable fuel producers receive from RINs. For example, at a D6 RIN value of $1.00, a gallon of corn ethanol receives $1.00 whereas a gallon of conventional biodiesel receives $1.50. At a D3 RIN value of $3.00, a gallon of cellulosic ethanol receives $3.00, whereas a gallon of cellulosic renewable diesel receives $5.10.

2. Rationale for Revision

As discussed in Section VIII.A above, the 2016 REGS proposal requested comment on several eRIN-related topics, including the equivalence value for electricity used as transportation fuel. The preponderance of commenters argued that EPA should revise the equivalence value to allow for the generation of more eRINs for a given quantity of renewable electricity, which would provide greater value for that renewable electricity.[278] A common argument was that a given quantity of biogas used to produce renewable electricity would receive less credit in the RFS program (fewer RINs) than if it were used as RNG, due the energy loss in the conversion from gas to electricity. Despite the addition of eRINs to the RFS program, commenters believed the result might still be little generation of eRINs given the far greater incentive for the use of the biogas as RNG if the basis for equivalence values (*i.e.,* energy content of the fuel) remained unchanged.

Another point raised by several stakeholders is that an energy content-based equivalence value does not take into account the much greater efficiency of the electric vehicles themselves. Energy content-based equivalence values may work well when comparing fuels that are all combusted in internal combustion engines, but they argued that this does not treat electricity appropriately given its much greater end-use efficiency. Here, the comments suggested refocusing credits on the energy efficiency of electricity generation, vehicle powertrains, or some combination of the two.

Other stakeholders have asked us to address the ''point of measure'' (POM) issue that concerns the energy losses associated with electricity generation. In other words, depending on where one measures the energy in the eRIN generation/disposition chain, the resulting RIN generation is considerably different. Specifically, if one measures the energy at the point where the biogas feedstock is produced, more than three times the RIN revenue is provided than if one measures the energy after that same biogas is used to produce renewable electricity, even though there is no difference in the electrical energy produced or the distance an electric vehicle can travel using this energy.

Modifying the basis for equivalence values in one or more of these ways could address the issues raised by stakeholders and would provide greater credit value for eRINs and consequently a greater incentive for EV and renewable electricity growth.

3. Proposed Equivalence Value for Renewable Electricity

We are proposing to change the equivalence value for renewable electricity to account for system inefficiencies in both the RNG (CNG/LNG vehicle fueling) and electricity (EV charging) supply chains to ensure approximately equivalent RIN generation between the two for a given amount of biogas. In doing so, the

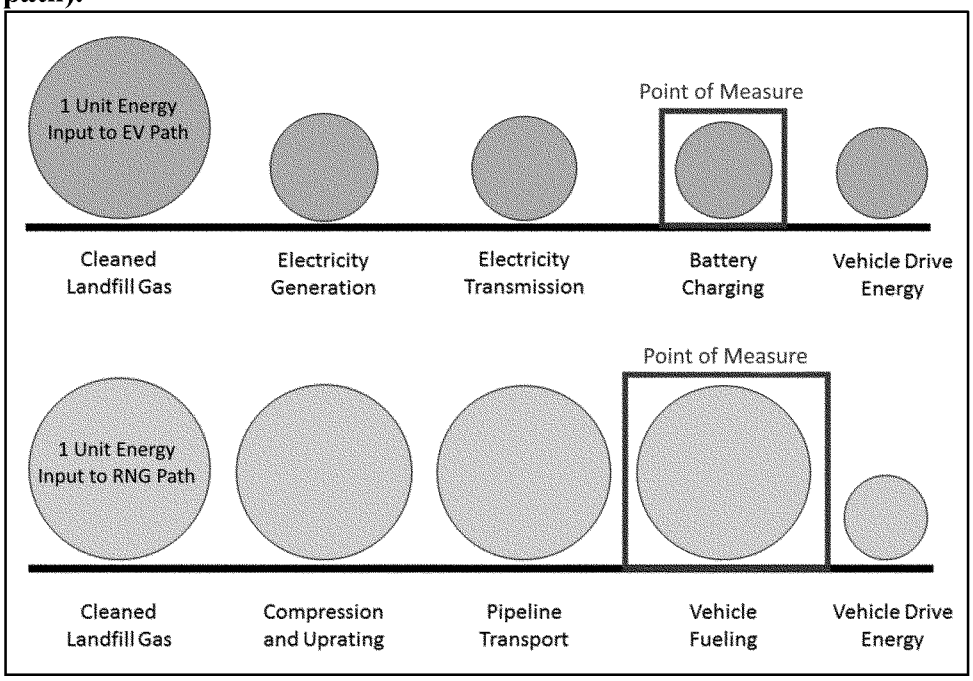
[277] See 40 CFR 80.1415.

[278] See docket EPA–HQ–OAR–2016–0041.

equivalence value for RNG is not being altered. The proposed approach seeks to establish and maintain equivalence values for renewable electricity and RNG, respectively, that are consistent with the statutory goal of displacing petroleum-based fuels in the transportation sector. This approach also seeks to establish an equivalence value for renewable electricity that is consistent with the existing structure of the RFS program in which equivalence values are determined based on the energy content of the fuel, rather than attempting to account for vehicle efficiency. Relative to the existing equivalence value for renewable electricity this proposed change would allow for a greater number of RINs to be generated for renewable electricity. The information used to calculate the proposed equivalence value for renewable electricity is discussed in greater detail in DRIA Chapter 6.1.4.

The POM issue is a key starting point for understanding the need to revise the equivalence value for renewable electricity. In general, parties generate RINs based on the quantity of renewable fuel supplied at the POM and the applicable equivalence value. Figure VIII.I.3–1 illustrates how one unit of landfill-derived RNG energy flows through the supply chain to fuel either an electric vehicle (upper path) or a CNG/LNG vehicle (lower path), where each circle's area approximates the fraction of useful energy that remains after each step. The boxes around the fourth circle indicate the POM where the energy is transferred to the vehicle, either at a RNG refueling station or an EV charger.

Figure VIII.I.3-1: Illustration of the impact of point-of-measure for landfill gas used to power electric vehicles (upper path) or as RNG for CNG/LNG vehicles (lower path).



As the diagram makes clear, this POM produces a very different measure of fuel energy for electricity than for RNG. In the case of electricity, the initial conversion of the biogas's chemical energy to mechanical energy occurs upstream of the POM in the EGU, and this step results in a significant loss of useful energy. In the case of RNG, in contrast, there is no upstream conversion and, while energy losses occur, they essentially all occur when the chemical energy in the fuel is converted to drive energy on board the vehicle after the POM. The net result of this difference is that the number of available RINs for EV charging is heavily discounted relative to the RNG pathway for the same biogas input. Thus, the existing POM significantly disadvantages renewable electricity relative to RNG used as renewable CNG/LNG, because while both supply chains experience energy losses prior to powering a vehicle, the relatively inefficient combustion of RNG occurs prior to the POM for electricity, but after the POM for direct use in a CNG/LNG vehicle.

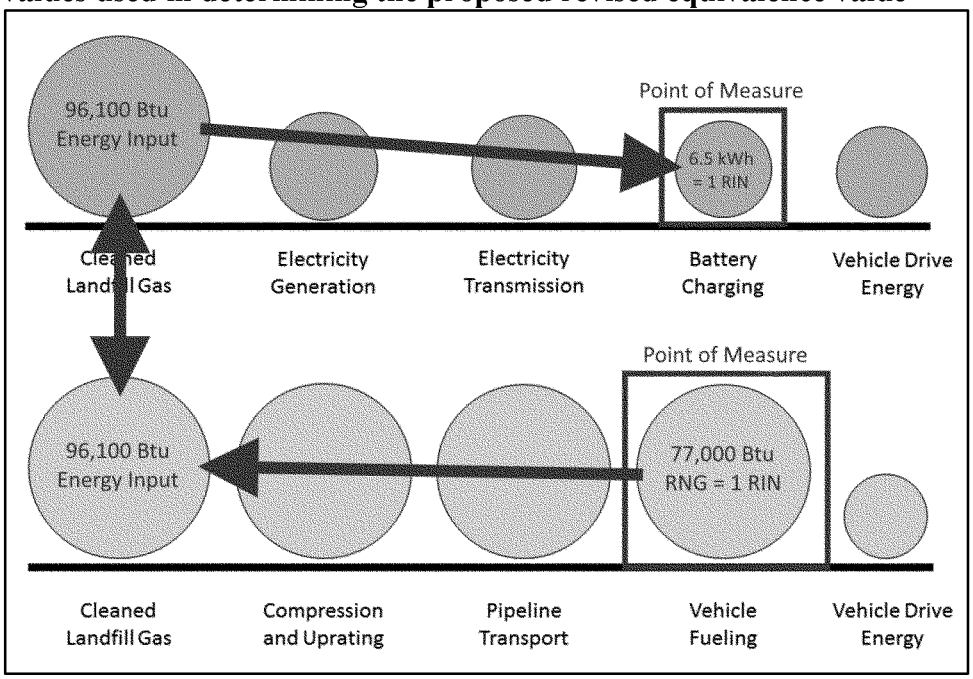
We believe this existing approach arbitrarily penalizes the use of biogas-derived renewable electricity and are therefore proposing to revise the equivalence value. Our proposed revision does not change or add POMs, but rather considers key steps or processes along the energy supply chains that significantly affect the amount of useful energy delivered to the transportation application. For the renewable electricity pathway this includes generation, transmission, and EV battery charging, and for the RNG pathway, compression and pipeline transport of the fuel. Essentially, we summed up the energy losses between the two POMs and incorporated those into the proposed electricity equivalence value in order to put them on more equitable footing. Figure VIII.I.3–2 summarizes this approach by overlaying arrows and values onto the previous diagram indicating the flow of our computation.

In determining the proposed revised equivalence value, we first analyzed the efficiencies and losses associated with biogas used in CNG/LNG vehicles using information from an Argonne National Labs analysis of landfill gas

pathways [279] and from EIA's published values on natural gas consumption and delivery.[280] Production and delivery of biogas upgraded to RNG and used as renewable CNG/LNG includes collection of the biogas, purification to produce RNG, and compression processes to transfer it onto a pipeline and into a vehicle tank. Accounting for the range of data available, this analysis indicates a central estimate of 96,100 BTU of input energy is required to deliver 1 RIN (77,000 Btu) of RNG to the vehicle.

We then analyzed the efficiencies and losses associated with converting 96,100 BTU of biogas energy into electricity for delivery to an EV. Starting with the assumption that the electrical generation unit (EGU) would draw the raw biogas (same assumption for the 96,100 BTU as input for RNG), we applied a factor of 28.8 percent for EGU thermal efficiency and 5.3 percent for transmission line losses based on information in EPA's eGRID database.[281] A literature review on EV charging efficiencies is presented in DRIA Chapter 6.1.4.4, and suggests a charging efficiency range of 80–90 percent for common EV charging configurations. Overall, we derive a central estimate of 22,300 BTU of electrical energy delivery to the vehicle battery in correspondence to 1 RIN of biogas energy delivery to a CNG/LNG vehicle. Dividing this value by 3,412 Btu/kWh to convert to kilowatt-hours produces an equivalence value of 6.5 kWh per RIN. We propose that this revised equivalence value for renewable electricity produced from biogas would replace the value of 22.6 kWh per RIN that is currently in the regulations. A more detailed discussion of the derivation of the 6.5 kWh equivalence value is available in DRIA Chapter 6.1.4.4.

Figure VIII.I.3-2: Illustration of the computation pathway (arrows) and energy values used in determining the proposed revised equivalence value



In addition to our proposed approach, we also considered the alternative approaches suggested in comments on the REGS rule. One potential alternative considered was to change the POM for electricity such that it occurs prior to electricity generation (placing the POM box in Figure VIII.I.3–2 around or just after the first circle). This would allow for the same number of RINs to be generated for biogas whether it is used in CNG/LNG vehicle or in generating renewable electricity without increasing the equivalence value for electricity. However, there are several downsides to changing the POM for electricity. First, allowing RIN generation for electricity on the basis of the biogas used to produce the electricity could create difficulty in matching RIN generation (which would be done on the basis of biogas production) and use of the fuel as transportation fuel (which would be a measure of electricity used to charge an EV). Second, in years for which the use of electricity as transportation fuel is the limiting factor for RIN generation, using biogas consumption for electricity generation as the basis for RIN generation would favor less efficient electricity generators, as these parties would combust higher quantities of biogas (and thus generate more RINs) for the same quantity of electricity used as transportation fuel.

We also considered an equivalence value based on the efficiency of an electric vehicle relative to a vehicle with an internal combustion engine. Conceptually this approach would seek to give a similar number of RINs to renewable fuels that transport a vehicle the same distance. For example, this approach would seek to provide a similar quantity of RINs for fuel that powers a vehicle for 100 miles, whether that fuel was RNG or electricity. By taking into account the much higher

[279] M. Mintz, J. Han, M. Wang, and C. Saricks, ''Well-to-Wheels Analysis of Landfill Gas-Based Pathways and Their Addition to the GREET Model'', Center for Transportation Research, Energy Systems Division, Argonne National Laboratory. 2010. Report ANL/ESD/10–3.

[280] U.S. Natural Gas Consumption by End Use, U.S. Department of Energy, Energy Information Administration. June 2021.

[281] eGRID 2019 Technical Guide, prepared by Abt Associates for U.S. EPA Clean Air Markets Division, February 2021.

efficiency of an electric motor relative to an internal combustion engine, this approach would offset the disadvantage of measuring renewable electricity after biogas has been combusted. This approach, however, would be a significant departure from the existing structure of the RFS program, which currently does not take vehicle efficiency into account when determining the number of RINs generated per gallon of renewable fuel. The same number of RINs are generated for biofuels used in all vehicles, whether those vehicles are relatively efficient or inefficient. Further, accounting for the efficiency of a vehicle in the equivalence value of a fuel would introduce significant complexity into an already complex eRIN program. To do so we would either need to determine a single equivalence value that reflects an average of the wide variety of electric vehicle efficiencies, or alternatively, use different equivalence values for different vehicles or categories of vehicles.

While we are not proposing to use this approach to determine the equivalence value for electricity, we note that equivalence values suggested by others using such an approach are similar to our proposed value. For example, the International Council on Clean Technologies, in their comments on the REGS rule, suggested a value of 5.24 kWh per RIN. The California LCFS program uses a different structure for credit generation that provides an energy equivalence ratio multiplier to account for the higher efficiency of electric vehicles. Applying California's multiplier for light-duty vehicles (3.4) to the existing RFS equivalence value of 22.4 kWh per RIN produces an equivalence value of 6.6 kWh per RIN.

We request comment on our proposed approach to revising the equivalence value for electricity. Additionally, we request comment on the threshold issues of whether to change the equivalence value for electricity in the first instance and, if so, what approach should be used and what the new equivalence value should be. We invite commenters to submit any relevant data that would help inform the equivalence value for electricity.

J. Regulatory Structure and Implementation Dates

1. Structure of the Regulations

Due to the comprehensive nature of the proposed eRIN provisions, we believe that it makes sense to create a stand-alone subpart rather than embed them in the rest of the RFS regulatory requirements in 40 CFR part 80, subpart M. Thus, we are proposing to create a new subpart E in 40 CFR part 80. This new subpart would include provisions not only for biogas and RNG used to produce renewable electricity, but also for other biogas-derived renewable fuels including biogas used in CNG/LNG vehicles and cases where biogas is used as a biointermediate. Existing provisions for these fuels under subpart M would be moved into the new subpart E.

Based on our general approach adopted in the Fuels Regulatory Streamlining Rule,[282] we are proposing to structure the new subpart for biogas-derived renewable fuels as follows:

- Identify general provisions (*e.g.,* implementation dates, definitions, etc.);
- Articulate the general requirements that apply to parties regulated under the subpart (*e.g.,* biogas producers, renewable electricity generators, and renewable electricity RIN (eRIN) generators); and then
- Articulate the specific compliance and enforcement provisions for biogas-derived renewable fuels (*e.g.,* registration, reporting, and recordkeeping requirements).

We believe that this subpart and structure would make the biogas-derived renewable fuel provisions more accessible to all stakeholders, help ensure compliance by making requirements more easily identifiable, and help future participants in biogas-derived biofuels better understand regulatory requirements in the future.

2. Implementation Dates

As described in Section VIII.E.4, we are proposing to allow for eRIN generation to begin January 1, 2024. In order to accommodate eRIN generation on January 1, 2024, we are proposing to begin implementation of the eRINs provisions as soon as the rule is effective (anticipated to be 60 days after publication of the final rule in the **Federal Register**). This means that we would begin accepting registration submissions for parties that elect to participate in the proposed eRINs program beginning 60 days after publication of the final rule in the **Federal Register**. However, while we would begin accepting registration upon the effective date of the final rule, for the reasons described in Section VIII.E.4, we believe that the generation of eRINs cannot reasonably begin at this time.

We recognize that due to the large number of parties that may want to register to produce biogas and renewable electricity to generate RINs for renewable electricity used for transportation, these parties may have difficulty in arranging for third-party engineering reviews, preparing registration submissions, and having EPA process and accept those registration materials prior to January 1, 2024. For instance, based on EPA's Landfill Methane Outreach Program (LMOP) data, we believe there are currently somewhere between 400 and 600 landfills in the U.S. that may be capable of registering in order to use the biogas they produce for the purpose of eRIN generation.[283] Additionally, according to EPA's AgSTAR data, we believe there are somewhere between 100–200 agricultural digester-to-renewable electricity generation projects.[284] We believe it is possible that some facilities that are able to produce qualifying biogas or renewable electricity may not be able to complete all the necessary steps that would allow EPA to accept that registration before January 1, 2024. If we do not provide flexibility for the delayed generation of eRINs, we would limit the near-term generation of eRINs to only those parties that submitted their registrations first, despite other parties producing qualifying biogas and renewable electricity. We believe this would ultimately create an unlevel playing field whereby only some, typically larger, renewable electricity generators would be able to start generating eRINs on January 1, 2024, while others would not. We believe that larger renewable electricity generators would be unfairly advantaged because they would be more able to pay a premium for third-party engineers to conduct site visits and hire consultants to prepare and submit registration materials. This would additionally make our estimation of eRIN generation during the first year of the program difficult and undermine certainty in the proposed volumes.

To address this potential scenario, we are proposing a temporary flexibility with regard to the acceptance of registrations related to eRINs. Under the current RFS regulations, we do not allow a party to generate RINs until after EPA has accepted its registration. Applying this to the start of eRINs would mean that in order for an eRIN to be generated, all three core parties (*i.e.,* the biogas producer supplying the biogas, the renewable electricity generator generating the renewable

[282] See 85 FR 78415–78416 (December 4, 2020).

[283] For more basic information on landfill gas energy projects included in the LMOP data, see *https://www.epa.gov/lmop/basic-information-about-landfill-gas.*

[284] For more information on agricultural digester to electricity projects included in AgSTAR data, see *https://www.epa.gov/agstar/livestock-anaerobic-digester-database.*

electricity, and the light-duty OEM generating the eRIN) must complete registration by January 1, 2024. Given the challenges associated with this at the program startup we are proposing that OEMs would be permitted to generate eRINs for renewable electricity produced from qualifying biogas produced from January 1, 2024 through April 30, 2024, without the associated biogas producers and renewable electricity generators having an EPA-accepted registration so long as all of the following conditions are met:

- The biogas producer submitted a registration request with a third-party engineering review report to EPA no later than December 31, 2023.
- The renewable electricity generator submitted a registration request with a third-party engineering review report to EPA no later than December 31, 2023.
- Neither the biogas producer nor renewable electricity generator substantially alters their facilities after the third-party engineering review site visit.
- The biogas was produced after the third-party engineering review site visit.
- The renewable electricity generator contracted with the eRIN generator for the RIN generation allowance from their renewable electricity prior to January 1, 2024.
- The renewable electricity was generated between January 1, 2024, and March 31, 2024.
- The biogas producer, renewable electricity generator, and eRIN generator meet all applicable requirements under the RFS program for the biogas, renewable electricity, and RINs.
- EPA accepts the registrations for the biogas producer and/or the renewable electricity generator by April 30, 2024.

Under this proposal, parties would essentially have until the first quarterly RIN generation deadline in 2024 for EPA to accept their registration submission. Under this proposal, this would be 30 days after the end of the first quarter in 2024, or April 30, 2024. We believe this is enough time for EPA to reasonably approve all timely registration submissions. We have adopted flexibilities to address similar concerns in the past. For example, in 2010 we provided flexibilities for delayed RIN generation while EPA transitioned from RFS1 to RFS2 and when EPA was in the process of approving new pathways.[285]

We note that if EPA does not accept registration materials needed for the generation of eRINs from a biogas producer or renewable electricity generator by April 30, 2024, the OEM would not be able to generate RINs. We also note that parties that do not meet the conditions of this proposal would still be able to register to generate eRINs, but their biogas or renewable electricity would not be able to take advantage of this proposed flexibility. Instead, OEMs could rely on the biogas or renewable electricity for eRIN generation only after EPA has accepted the registrations for the biogas producer and/or renewable electricity generator.

We seek comment on our proposal to begin implementation on the effective date of the rule and begin eRIN generation for renewable electricity produced from qualifying biogas on January 1, 2024. We also seek comment on our proposal to allow RIN generation for the first quarter of 2024 under certain circumstances to provide more time for parties and EPA to process registration submissions related to eRINs. We are particularly interested in whether EPA should provide more time for parties to submit and EPA to accept eRIN related registration submissions.

K. Definitions

We are proposing definitions of the various regulated parties, their facilities, and the products related to the production of biogas-derived renewable fuels. We are also proposing to define other terms as necessary for clarity and consistency. We are also proposing to move and consolidate all defined terms for the RFS program from 40 CFR 80.1401 to 40 CFR 80.2. We are doing this because we moved all of the non-RFS fuel quality regulations from 40 CFR part 80 to 40 CFR part 1090 as part of our Fuels Regulatory Streamlining Rule.[286] As such, it is no longer necessary to have a separate definitions section for 40 CFR subpart M, as only requirements related to the RFS program are housed in 40 CFR part 80. We are not proposing to change the meaning of the terms moved from 40 CFR 80.1401 to 40 CFR 80.2, but are simply relocate them to consolidate the definitions that apply to RFS in a single location. For these relocated terms, we are not proposing to amend their meaning and any comments on the relocated terms will be considered beyond the scope of this rulemaking. We are proposing to add any newly defined terms under this proposal to 40 CFR 80.2.

For parties regulated under the proposed eRIN and biogas regulatory reform provisions (the latter discussed in Section IX.I), we are proposing several new terms to specify which persons and parties are subject to the proposed regulatory requirements in a manner that is consistent with our approach under our other fuel quality and RFS regulations. For example, we are proposing that a biogas producer would be any person who owns, leases, operates, controls, or supervises a biogas production facility, and a biogas production facility would be any facility where biogas is produced from renewable biomass that qualifies under the RFS program. We propose the same framework for RNG producers and renewable electricity generators. We are proposing to define the eRIN generator, *i.e.,* a light-duty OEM, as any OEM of light-duty vehicles or light-duty trucks who generates RINs for renewable electricity.

Under the existing RFS regulations, the term ''biogas'' is used to refer to many things and its use may differ depending on context. In some cases, we distinguish between raw biogas, *i.e.,* biogas collected at a landfill or through a digester that contains impurities and large portions of inert gases, and pipeline-quality biogas which has many of the impurities removed for distribution through a commercial pipeline. Some stakeholders also use the pipeline-quality biogas term interchangeably with renewable CNG or renewable LNG, which are renewable fuels produced from biogas. To clarify our intent, we are proposing specific definitions for biogas-derived renewable fuel, biogas (or raw biogas), biomethane, and renewable natural gas (RNG). These new terms would apply to the proposed eRINs program as well as the biogas regulatory reform provisions discussed in Section IX.I.

Because ''biogas'' is often used to broadly mean any renewable fuel used in the transportation sector that has its origins in biogas, we are proposing a more descriptive and inclusive term of ''biogas-derived renewable fuel.'' Under this proposal, biogas-derived renewable fuels would include renewable CNG, renewable LNG, renewable electricity, or any other renewable fuel that is produced from biogas or its pipeline-quality derivative RNG now or in the future.

Under this proposal, we would define biogas (sometimes referred to as raw biogas) as a mixture of biomethane, inert gases, and impurities that is produced through the anaerobic digestion of organic matter prior to any treatment to remove inert gases and impurities or adding non-biogas components. We have proposed to update this definition to make more explicit that this definition refers to the biogas collected at landfills or through a digester before that biogas is either upgraded to produce RNG or is used to make a

[285] 75 FR 76790 (December 9, 2010).

[286] 85 FR 78417–78420 (December 4, 2020).

biogas-derived renewable fuel, which was intended but not stated in the previous definition.

We are proposing to define biomethane as exclusively methane produced from renewable biomass (as defined in 40 CFR 80.1401). We believe a separate definition for biomethane is important because biomethane (exclusive of impurities, inert gases often found with biomethane in biogas) is what renewable electricity and eRIN generation is based on. In order to ensure the appropriate measurement of biomethane for RIN generation for RNG, we have issued guidance under the existing regulations that cover cases where non-renewable components are added to biogas.[287]

To describe biogas-derived pipeline-quality gas, we are proposing to adopt a term now in common use, renewable natural gas or RNG. Under this proposal, in order to meet the definition of RNG, the product would need to meet all of the following:

- The gas must be produced from biogas.
- The gas must contain at least 90 percent biomethane content.
- The gas must meet the commercial distribution pipeline specification submitted and accepted by EPA as part of registration.
- The gas must be designated for use to produce a biogas-derived renewable fuel.

We are proposing that RNG must contain at least 90 percent biomethane content because we believe this is consistent with many commercial pipeline specifications that we have seen submitted as part of existing registration submissions for the biogas to renewable CNG/LNG pathways. We do, however, seek comment on whether a different biomethane content would be more appropriate.

EPA's existing biogas guidance explains that biogas injected onto the commercial pipeline should meet the specific pipeline specifications required by the commercial pipeline in order to qualify as transportation fuel for RIN generation.[288] We are proposing to codify this guidance in our regulations as part of the proposed definition of RNG. As a result, registration submissions for RNG under the RFS program would require the submission of these pipeline specifications and we are proposing a definition of RNG that would require gas to meet those pipeline specifications.

We are also proposing that RNG be defined such that it only meets the definition if the gas is designated for use to produce a biogas-derived renewable fuel under the RFS program. We are proposing this element of the definition for consistency with the regulatory requirement that such fuels be used only for transportation under the RFS consistent with the Clean Air Act. We believe such an element is important to avoid the double-counting of volumes of RNG that could be claimed as both a renewable fuel under the RFS program and as a product for a non-transportation use under a different federal or state program.

We have incorporated the use of these new proposed definitions in both the new 40 CFR part 80, subpart E proposed regulations for biogas derived renewable fuels, and 40 CFR part 80, subpart M where applicable. We seek comment on these proposed definitions and on whether there are other terms that we should define. If suggesting a newly defined term, commenters should also provide a suggested definition for that term.

L. Registration, Reporting, Product Transfer Documents, and Recordkeeping

We are proposing compliance provisions necessary to ensure that the production, distribution, and use of biogas, renewable electricity, and eRINs are consistent with Clean Air Act requirements under the RFS program. These proposed compliance provisions include registration, reporting, PTDs, and recordkeeping requirements. We discuss each of these compliance provisions below.

1. Registration

Under the RFS program, we require biointermediate and renewable fuel producers to demonstrate at registration that their facilities can produce the specified biointermediates and renewable fuels from renewable biomass under an EPA-approved pathway. These producers demonstrate that they are capable of making qualifying biointermediates and renewable fuels by having an independent third-party engineer conduct a site visit and prepare a report confirming the accuracy of the producer's registration submission. These RFS registration requirements serve as an important step to ensure that only biointermediates and renewable fuels that can be initially demonstrated to meet the Clean Air Act requirements for producing qualifying renewable fuels are allowed into the program. We also require parties that transact RINs to register in order for them to gain access to EPA systems where RIN transactions are recorded and to submit required periodic reports, which are necessary to ensure that we can track and verify RINs.

To that end, we are proposing that biogas producers, renewable electricity generators, eRIN generators, and RNG producers would be required to register with EPA prior to participation in the RFS program. Under this proposal, biogas producers, RNG producers, and renewable electricity generators would have to submit information that demonstrates that their facilities are capable of producing biogas, RNG, or renewable electricity from renewable biomass under an EPA-approved pathway. This information would include the feedstocks that the producer or generator intends to use, the process through which the feedstock is converted into biogas, RNG, or electricity, and any other information necessary for EPA to determine whether biogas, RNG, or electricity were produced in a manner consistent with Clean Air Act and EPA's regulatory requirements. Such information is necessary to ensure that eRINs are generated only for renewable electricity generated from qualifying biogas. Biogas producers, RNG producers, and renewable electricity generators would also have to establish a baseline volume for their respective facilities at registration. This baseline volume is intended to represent the production capacity of the facility and serve as a check for EPA and third parties on the volumes reported by a facility of biogas, RNG, or renewable electricity to help identify potential fraud. Like biointermediate production and renewable fuel production facilities, we are proposing that biogas production, RNG production,[289] and renewable electricity facilities undergo a third-party engineering review as part of registration to have an independent professional engineer verify at registration that the facility is capable of producing biogas, RNG, or renewable electricity consistent with Clean Air Act and EPA regulatory requirements.

Under this proposal, like other RIN generators, OEMs that want to generate eRINs would have to register with EPA under the RFS program to be able to generate and transact RINs in EMTS and to submit required periodic reports. We

[287] See ''Guidance on Biogas Quality and RIN Generation when Biogas is Injected into a Commercial Pipeline for use in Producing Renewable CNG or LNG under the Renewable Fuel Standard Program.'' September 2016. EPA–420–B–16–075.

[288] See ''Guidance on Biogas Quality and RIN Generation when Biogas is Injected into a Commercial Pipeline for use in Producing Renewable CNG or LNG under the Renewable Fuel Standard Program.'' September 2016. EPA–420–B–16–075.

[289] See 40 CFR 80.1450(b)(2).

are also proposing that, in addition to basic registration information for the company required of all registrants under EPA's fuel programs,[290] OEMs would have to submit information to EPA for their anticipated light-duty electric vehicle fleet size and disposition. This information is needed to serve as a baseline for total potential eRIN generation and would be used by EPA and third parties to evaluate whether OEMs generate an appropriate amount of eRINs based on the amount of renewable electricity that an OEM can demonstrate was used in its light-duty electric vehicle fleet as discussed in Section VIII.F.5. OEMs would update their light-duty electric vehicle fleet size and disposition information via the quarterly reporting requirements discussed in Section VIII.N.2.

We are also proposing that biogas producers, renewable electricity generators, and OEMs associate with one another as part of their registrations. An association is a process where two parties establish that they are related for purposes of complying with regulatory requirements under the RFS program. Such associations are needed to track the relationships between the parties and to allow RIN generators the ability to generate RINs in EMTS. For example, under the RFS QAP, RIN generators must associate with QAP auditors in order to generate Q–RINs in EMTS. Similarly, biointermediate producers and renewable fuel producers must associate with one another in order for the renewable fuel producer to generate RINs for renewable fuels produced from biointermediates. As discussed in Section VIII.F, biogas producers that directly supply a renewable electricity generation facility with biogas through a private, closed pipeline would need to associate with that renewable electricity generation facility via their registration with EPA and must supply their biogas to the associated renewable electricity generation facility. Similarly, for each renewable electricity generation facility, renewable electricity generators would have to associate with the OEM to which they have established their RIN generation agreement. We are proposing that this be monitored via registration because our registration system is currently set up to track these kinds of relationships. Similarly, for renewable electricity generators, we propose to track the association related to the transfer of RIN generation agreement to OEMs via the registration process.

It is important to note that under existing fuel quality regulations at 40 CFR part 1090 and RFS regulations at 40 CFR part 80, new registrants who require an annual attest engagement (see Section VIII.L.2) would have to identify a third-party auditor and associate with that party via registration. To submit materials on behalf of the regulated party, any third-party auditor who is not already registered would have to register in accordance with existing requirements under 40 CFR parts 1090 and 80 using forms and procedures specified by EPA. We are not proposing changes to this existing requirement.

2. Reporting

Under the RFS program, we generally require reports from regulated parties for the following reasons: (1) To monitor compliance with the applicable RFS requirements; (2) to support the generation, transaction, and use of RINs via EMTS; (3) to have accurate information to inform EPA decisions; and (4) to promote public transparency. We already have reporting requirements for renewable fuels, including for biogas-derived renewable CNG/LNG in 40 CFR 80.1451. We are proposing similar reporting requirements for biogas producers, renewable electricity generators, eRIN generators, and RNG producers.

For biogas producers, we are proposing quarterly batch reports that would include the amount of raw biogas produced as well as the biomethane content and energy for the biogas produced at each biogas production facility. In these reports, biogas producers would break down each batch by D-code, by digester, and by designated use of the biogas. The designated use of the biogas includes whether the biogas would be used to make renewable CNG/LNG via a closed, private pipeline system; RNG; on-site renewable electricity; or other use as a biointermediate. This information is necessary for us to ensure that the amount of biogas produced corresponds to the biogas producer's registration information and serves as the basis for RIN generation for biogas-derived renewable fuels. This information is also important for the verification of RINs under the RFS QAP and for annual attest audits. We need the information at the digester level for each biogas facility because we have determined, based on our current registrations, that some biogas production facilities have multiple digesters that produce biogas using different D-codes for different end uses. Without reported data at this level, it would be difficult if not impossible for third-party auditors and EPA to conduct effective audits of the facility. Additionally, Biogas producers will enter these quarterly batch reports directly into EMTS and transfer each batch to a renewable electricity generator in EMTS. This improved electronic reporting process is intended to improve the quality of information, enable better information sharing between parties, including third-party auditors, and define a structured reporting process.

For renewable electricity generators, we are proposing quarterly reports to support the amount of renewable electricity generated from qualifying biogas. Under these quarterly reports, renewable electricity generators would report the amount and energy content of biogas or RNG used to produce renewable electricity and the quantity of renewable electricity generated and placed onto the commercial electric grid serving the conterminous U.S. Renewable electricity generators would break down the quantity of renewable electricity generated by month, by EGU, and D-code. Renewable electricity generators would also need to identify which electricity is attributed to their designated OEM. For RNG co-processed with natural gas, we would require that renewable electricity generators report the amount of natural gas feed used to help ensure that eRINs are not generated for non-renewable electricity. Similar to the biogas reports, these reporting requirements are necessary to demonstrate the amount of renewable electricity produced from qualifying biogas, to describe the amount of renewable electricity placed on the commercial electric grid serving the contiguous U.S., and to help track which quantities of renewable electricity were supplied to eRIN generators. Similar to the reporting procedure for biogas producers, renewable electricity generators will enter these batch reports into EMTS and transfer the batch information to the OEM in EMTS. A batch of renewable electricity entered into EMTS would be directly connected to a corresponding amount of biogas batches within the renewable electricity generator's EMTS holdings. This process will ensure the batch information has been properly reported and transferred between parties. The reports would also serve as the basis for third-party verification and EPA audits to help ensure the validity of eRINs.

Under our proposal, OEMs that participate in the program as eRIN generators would be subject to all applicable reporting requirements for RIN generators under the current program. These requirements would

[290] For basic registration information, see 40 CFR 1090.805.

include the RIN generation reports,[291] RIN transaction reports,[292] and the RIN activity reports.[293] Prior to the generation of any RINs, OEMs would also be required to receive the corresponding transfer of the renewable electricity batches in EMTS demonstrating the renewable electricity batch was transferred and reporting requirements were completed. As the RIN generator, the OEMs would also be responsible for generating RINs in EMTS as well as separating and transacting the RINs.[294] These reporting requirements are necessary to allow for the generation of eRINs and are required of any party that generate RINs under the RFS program.

In addition to the reporting needed to administer the generation, separation, and transaction of RINs, we are proposing two additional reporting requirements for OEMs that generate eRINs. First, OEMs would be required to report quarterly their light-duty EV fleet size and disposition. Because we expect these data to change quarterly and the data serve as the basis for eRIN generation, it is necessary for OEMs to update this information to ensure that the appropriate number of eRINs are generated for each OEM's light-duty electric vehicle fleet. Furthermore, these reports would serve as the basis for compliance oversight by EPA and third parties. The quarterly fleet size and disposition reports would include the actual fleet totals and characteristics for their fleet by make, model, year, and trim.[295] We are proposing that the reported fleet characteristics would include the eVMT, efficiency, and charging efficiency. This information is needed to demonstrate that the appropriate amount of renewable electricity from qualifying biogas was used as transportation fuel in the OEM's light-duty electric vehicle fleet and, as discussed in Section VIII.F.6, help refine the assumed values for eRIN generation over time.

We note that we are also proposing new reporting requirements for RNG producers. These reporting requirements are described in more detail in Section IX.

In addition to seeking comment on these reporting provisions, we also seek comment on the draft reporting forms that have been added to the docket.[296]

3. Product Transfer Documents (PTDs)

We are proposing product transfer documents (PTDs) for transfers of title for biogas and for transfers of data regarding the generation of renewable electricity between renewable electricity generators and OEMs. We have historically used PTDs to create a record trail that demonstrates the movement of product between various parties, as a mechanism to designate and certify regulated products as meeting EPA's regulatory requirements, and to convey specific information to parties that take custody or title to the product.[297] PTDs are important for biogas and eRINs as they are necessary to document that qualifying biogas was transferred between biogas producers and renewable electricity generators and to ensure that eRIN generators receive necessary information concerning the amount of renewable electricity placed onto the commercial electric grid serving the contiguous U.S. for transportation use. EPA and third parties would also review PTDs to help verify the eRINs were validly generated.

For biogas transfers to renewable electricity generators, we are proposing that PTDs accompany transfers of title for biogas from biogas producers to renewable electricity generators. These PTDs would include information related to the transferer and transferee, a designation that the biogas is intended for use to produce renewable electricity, the amount of biogas being transferred, and the date that title of the biogas was transferred. These proposed elements of the PTDs largely mirror the elements included on the current PTD requirements for transfers of renewable fuels and biointermediates under the current RFS program in 80.1453.

We note that under this proposal, no PTDs would be necessary when biogas is transferred between a biogas production facility and a co-located renewable electricity generation facility as long as the same party maintains title of the biogas and owns and operates both facilities. We also note that these PTDs would not be required in cases where title to RNG is being transferred between RNG producers and renewable electricity generators. This is because, as discussed in Section IX.I, RINs are generated upon the production of RNG, and the transfer of those RINs then serves the function that the PTD would otherwise serve. The proposed generation of RINs for RNG and associated PTD requirements are discussed in Section IX.I, which addresses our proposed biogas regulatory reform.

For transfers of information related to the generation of renewable electricity, we are proposing that renewable electricity generators would create and transfer PTDs quarterly to OEMs for the amount of renewable electricity introduced onto the commercial electric grid serving the contiguous U.S. for the quarter. These proposed PTDs would include similar information to other PTDs required under the RFS program and the proposed biogas PTDs described above. This would include information regarding the transferer and transferee of the information related to the generation of renewable electricity, the amount of renewable electricity introduced onto the commercial electric grid serving the contiguous U.S., and a statement certifying that the renewable electricity was introduced onto the commercial electric grid serving the contiguous U.S. We are proposing these PTDs be transferred quarterly to align with the proposed RIN generation procedures in Section VIII.L.3.

We note that all other applicable PTD requirements under 40 CFR part 80 would apply. For example, after OEMs have generated and separated RINs for renewable electricity, the OEMs would still need to transfer PTDs for the separated RINs when they sell those RINs to other parties. We seek comment on the proposed PTD requirements for biogas and renewable electricity.

4. Recordkeeping

We are proposing recordkeeping requirements for biogas producers, renewable electricity generators, and eRIN generating OEMs. The purpose of recordkeeping requirements under the RFS program is to allow verification that the renewable fuels were produced from qualifying renewable biomass, under an EPA-approved pathway, and that the renewable fuel was used as transportation fuel, heating oil, or jet fuel. These records serve as the basis for information submitted to EPA as part of registration and reporting, as well as for the basis of audits conducted by independent third parties and EPA.

For biogas producers, we are proposing to continue to require records that are already required under the RFS for the production of renewable CNG/LNG from biogas. These records include information needed to show that biogas

[291] See 40 CFR 80.1451(b)(1)(ii).

[292] See 40 CFR 80.1451(b)(2) and (c)(1).

[293] See 40 CFR 80.1451(b)(3) and (c)(2).

[294] Requirements related to the generation, separation, and transaction of RINs in EMTS are described at 40 CFR 80.1452.

[295] For purposes of this preamble, a vehicle's trim refers to the different versions of a model that an OEM produces in a given year. Sometimes, OEMs manufacture a vehicle model that includes different trims for an ICE, PHEV, and EV version of the same model.

[296] ''Guidance on Biogas Quality and RIN Generation when Biogas is Injected into a Commercial Pipeline for use in Producing Renewable CNG or LNG under the Renewable Fuel Standard Program'' See document ID: EPA–420–B–16–075.

[297] The PTD requirements for RFS are described at 40 CFR 80.1453.

came from qualifying renewable biomass, copies of all registration information including information related to third-party engineering reviews, copies of all reports, and copies of any required testing and measurement under the RFS program. Specific to eRINs, we are proposing that biogas producers keep PTDs to support the fact that the biogas was transferred to renewable electricity generators.

For renewable electricity generators, we are proposing recordkeeping requirements consistent with other parties that produce renewable fuels under the RFS program. Similar to the proposed requirements for biogas producers, this would include information and documentation needed to support that the renewable electricity was produced from qualifying biogas or RNG, copies of all registration information, copies of all reports, and copies related to the measurement of renewable electricity transmitted onto the commercial electric grid serving the contiguous U.S. Renewable electricity generators that use RNG to produce renewable electricity would also have to maintain records related to separating RINs from the RNG as discussed in more detail in Section IX.I.

For OEMs, we are proposing recordkeeping requirements consistent with those of other RIN generators under the current RFS program. These records would include information received from the renewable electricity generator related to the amount of renewable electricity introduced onto the commercial electric grid serving the contiguous U.S., copies of contracts between the renewable electricity generator and the OEM to support the use of the renewable electricity generator's renewable electricity for RIN generation, and copies of all RIN generation records and reports. We would also require that OEMs keep copies of all calculations for RIN generation as well as any EMTS-related records for the generation and transaction of RINs. These records are needed to help ensure that eRINs are generated only for renewable electricity derived from qualifying biogas and used as transportation fuel.

Under the RFS program, parties that participate in the RFS QAP must maintain records related to their participation in the RFS QAP program which includes copies of contracts between the regulated party and the QAP auditor, copies of any records related to verification activities under the RFS QAP, and copies of any QAP-related submissions. For the proposed eRINs program, the recordkeeping requirements would similarly apply to parties in the eRINs generation/disposition chain that participate in the RFS QAP program. We describe in more detail how we propose the RFS QAP would work for eRINs in Section VIII.P.

We believe these proposed recordkeeping requirements for parties regulated under the proposed eRINs program are necessary to ensure proper program implementation and oversight. We seek comment on these proposed recordkeeping requirements and whether any additional recordkeeping requirements should be imposed as part of the proposed program.

M. Testing and Measurement Requirements

We are proposing to specify testing and measurement procedures for biogas, RNG, and renewable electricity. Due to the value of RINs and the contribution that that value can make to company revenue, parties have clear incentives to manipulate testing and measurement results to appear to have generated more renewable electricity, and thus RINs, than would be appropriate. By establishing clear and consistent testing and measurement requirements, we can ensure the validity of RINs and a level playing field for RIN generators. We separately discuss the testing and measurement considerations for biogas and RNG and renewable electricity below.

1. Testing and Measurement Requirements for Biogas and RNG

For the measurement of biogas and RNG, we are proposing to incorporate currently published guidance into the regulations.[298] Under this guidance, for RIN generation purposes, we specified that parties should use in-line gas chromatography (GC) meters that provide continuous readings to measure the energy content in BTUs of the biogas after treatment to remove inert gases (*e.g.,* nitrogen and carbon dioxide) and other contaminants (*e.g.,* hydrogen sulfides, total sulfur and siloxanes) and before the biogas or RNG is injected into a commercial distribution pipeline. Also under the guidance, we allow for parties to submit for EPA-approval as part of a registration submission an alternative sampling protocol that would properly measure the energy content of the biogas after treatment. Biogas and RNG producers would submit as part of their registrations whether they were using in-line GC meters or an alternative sampling protocol. We would not require parties with already-approved alternative sampling protocols to resubmit those approvals under this proposal.

Similarly, we are also incorporating into the proposed regulations the existing guidance related to analytical testing for the registration of biogas and RNG for use in the production of a biogas-derived renewable fuel.[299] Under the current guidance, any party registering to produce renewable CNG or renewable LNG from biogas injected into a commercial pipeline must describe the technology being used to treat the biogas to get the biogas to pipeline quality prior to blending with non-renewable fuel streams, and must demonstrate that this technology is successful by submitting a certificate of analysis (COA) from an independent laboratory. Specifically, the party that registers must supply the following at registration:

- A COA for a representative sample of the raw biogas produced at the digester or landfill;
- A COA for a representative sample of the ''cleaned up'' biogas after treatment;
- A COA for a representative sample of the biogas after blending with non-renewable gas (if the biogas is blended with non-renewable gas prior to injection into a pipeline);
- Specifications for the commercial distribution pipeline into which the RNG will be injected;
- Summary table with the results of the three COAs and the pipeline specifications (converted to the same units); and
- Documentation of any waiver provided by the commercial distribution pipeline for any parameter of the RNG that does not meet the pipeline specifications, if applicable.

The COAs must report major and minor gas components (*e.g.,* methane, carbon dioxide, nitrogen, oxygen, heating value, relative density, moisture, and any other available data related to the gas components), hydrocarbon analysis, and trace gas components (*e.g.,* hydrogen sulfide, total sulfur, total organic silicon/siloxanes, moisture, etc.), plus any additional parameters and related specifications for the pipeline being used. We are specifying specific standards that must be used when measuring biogas properties. These

[298] ''Guidance on Biogas Quality and RIN Generation when Biogas is Injected into a Commercial Pipeline for use in Producing Renewable CNG or LNG under the Renewable Fuel Standard Program'' See document ID: EPA–420–B–16–075.

[299] ''Guidance on Biogas Quality and RIN Generation when Biogas is Injected into a Commercial Pipeline for use in Producing Renewable CNG or LNG under the Renewable Fuel Standard Program'' See document ID: EPA–420–B–16–075.

standards are based on methods used for these measurements which have been submitted to us in the past and which we believe provide sufficient accuracy. We are seeking comment on the proposed standards as well as any additional standards that would ensure biogas properties are accurately measured. The pipeline specifications must contain information on all parameters regulated by the pipeline (*e.g.,* hydrogen sulfide, total sulfur, carbon dioxide, oxygen, nitrogen, heating content, moisture, and any other available data related to the gas components). We allow parties that cannot obtain the COAs to make an alternative demonstration for biogas and RNG quality during the registration process if they can demonstrate that the alternative demonstration is similarly robust to independent laboratory analysis.

We also note in the guidance that parties must keep the COAs, pipeline specifications, and any measurement-related RIN generation components under the recordkeeping requirements of 40 CFR 80.1454. As part of the RFS program's third-party oversight provisions, the guidance recommends that third-party engineers review conformance with applicable recordkeeping requirements as part of their engineering reviews while third-party auditors review conformance with these recordkeeping requirements pursuant to the RFS QAP. We are proposing to codify the recordkeeping requirements for the testing and measurement of biogas and RNG as well as the requirement that third parties verify this information mentioned in the guidance.[300]

We are also specifying additional measurement requirements for RNG that is trucked to a gas pipeline interconnect. In this situation, we are proposing that RNG producers must measure RNG flow and energy content of biomethane both on loading into and unloading from the truck. We find that this requirement is necessary to ensure that RINs are generated from biomethane.

We do not believe these proposed requirements would impose any additional burden on currently registered parties as the proposed requirements are in line with existing guidance and we believe all current registrants for biogas have indicated that they comply through their registrations. We seek comment on this proposed inclusion of the current biogas guidance into the regulations.

2. Metering Requirements for Renewable Electricity

For the measurement of renewable electricity transmitted to the grid, we are proposing that facilities use revenue grade meters that meet the requirements of ANSI C12.20–15.[301] Under the NTTAA, we are required to specify industry standards when appropriate, and we believe this standard is appropriate considering our need to ensure consistent, quality measurement of renewable electricity for RIN generation. Under this proposal, we would ask that third-party engineers verify that meters at renewable electricity facilities meet ANSI C12.20–15 as part of third-party engineering reviews. We are also proposing that the facilities keep records of the calibration and maintenance of meters that would also be part of 3-year registration updates and RFS QAP verification.

We recognize that many current electricity projects may not have revenue grade meters and that it may take time for these renewable electricity generators to install compliant meters. Therefore, we seek comment on whether there are alternative metering standards for renewable electricity or whether we should provide an alternative approval process if the renewable electricity generator can demonstrate that the alternative measurement method is as valid as ANSI C12.20–15. We also seek comment on whether we should temporarily allow alternative measurement methods for a period to let renewable electricity generators have enough time to install revenue grade meters and, if so, what temporary alternative measurement methods should be allowed.

N. RFS Quality Assurance Program (QAP)

We are proposing changes to the RFS QAP provisions to allow for verification of eRINs. The RFS QAP provides for auditing of biointermediate and renewable fuel production facilities by independent third-party auditors who review feedstock, process, and RIN generation elements to determine if renewable fuel production and RIN generation is consistent with EPA requirements. Once having gone through this process, the RINs generated are considered to be QAP verified (often referred to as a Q–RIN). The current RFS QAP provisions do not include the specific elements that we believe would be necessary to verify the entire eRIN generation/disposition chain.

Under this proposal, the biogas production, renewable electricity generation, and eRIN generation would all need to be verified to generate a verified eRIN (*i.e.,* Q–RIN). This would mean that the QAP auditor would have to have a pathway specific plan approved for all three parties in the eRINs production chain. As with the similar case of biointermediates where multiple parties are in the chain, the same QAP auditor would be required to conduct verification of all three facilities in order for the eRIN to be Q–RINs. We believe that this is necessary to provide the level of assurance that is expected from the RFS QAP. If we allowed the eRIN generator to generate Q–RINs without also verifying the biogas production and renewable electricity generation, it could undermine the level of compliance assurance provided by the QAP process.

We are not proposing mandatory participation in the RFS QAP for parties that participate in the proposed eRINs program. We do not believe that such a requirement is necessary due to the nature of the proposed eRINs regulatory program. We note that this contrasts with the recently finalized biointermediates program.[302] For the biointermediates program, we expressed significant concerns over the double generation of RINs from a biointermediate, which is often indistinguishable from renewable fuel, and a renewable fuel. In such cases, a party could generate a RIN for the biointermediate and a separate party could generate a RIN for a renewable fuel made from the biointermediate. We also had concerns with biointermediates being adulterated with non-qualifying feedstocks in route to the renewable fuel production facility. Therefore, on balance we believed that mandatory QAP participation was necessary to mitigate these concerns.

We do not have the same concerns with the proposed eRINs program. As discussed in Section VIII.P.1.d, we have two main concerns regarding the generation of invalid eRINs: the double-counting of the biogas or RNG (*e.g.,* one party generates a RIN for the biogas for use as renewable CNG and then another party claims the same volume of biogas was used to make renewable electricity) and the double-counting of renewable electricity to generate multiple eRINs (*e.g.,* one party claims an amount of renewable electricity through one set of data to generate eRINs and another party

[300] "Guidance on Biogas Quality and RIN Generation when Biogas is Injected into a Commercial Pipeline for use in Producing Renewable CNG or LNG under the Renewable Fuel Standard Program" See document ID: EPA–420–B–16–075.

[301] See ANSI C12.20–20, "Electricity Meters 0.2 And 0.5 Accuracy Classes," available in the docket for this action.

[302] 87 FR 39600 (July 1, 2022).

claims the same amount of renewable electricity through a different set of data to generate additional eRINs). For the biogas and RNG that would be used to produce renewable electricity, we believe the proposed biogas regulatory reform provisions discussed in Section IX.I would address most of our double-counting and double-RIN generation concerns. Tracking the movement and use of RNG through assigned RINs in EMTS limits the ability to double-count the volume of RNG. We note, however, that should we decline to finalize the proposed provisions for biogas regulatory reform discussed in Section IX.I, we would consider it necessary to require mandatory QAP participation for eRIN participants as a mechanism to help oversee the program and avoid the double-counting of the biogas or RNG.

Regarding the double-counting of renewable electricity, we believe that the proposed conditions on RIN generation discussed in Section VIII.F.5 would virtually eliminate the possibility that renewable electricity is double-counted. The proposed many-to-one structure only allows the RIN generation allowance from a renewable electricity generator to go to a single OEM. OEMs, in turn, could only generate RINs for registered EVs in service that they manufactured. This should virtually eliminate the possibility that the renewable electricity is double counted. Furthermore, unlike biointermediates, the renewable electricity is already in its final form, so we do not have concerns that the renewable electricity would fail to be generated consistent with an EPA-approved pathway from qualifying biogas.

As is currently the case for RINs generated from biogas to renewable CNG/LNG, we do, however, believe that obligated parties and other RIN market participants would want most eRINs to be verified under the RFS QAP. While the RFS QAP provides additional assurance to obligated parties that the verified RINs (Q–RINs) are likely valid, consistent with the current regulations, obligated parties must still replace invalid Q–RINs. The regulations do allow for obligated parties to establish an affirmative defense against civil violations under 40 CFR 80.1473 as long as all elements needed to establish such a defense are met. We believe this is due to the relatively high value of cellulosic RINs and the difficulty in procuring replacement cellulosic RINs should they turn out to be invalid.

Under the proposed changes to the RFS QAP for eRINs, biogas production verification would remain substantially the same as what is currently required for biogas and RNG used to produce renewable CNG/LNG. The QAP Provider would be required to perform a site visit to the biogas production facility (*e.g.,* the landfill, agricultural digester, waste digester, etc.) and the upgrading facility for the biogas that turned it into RNG, if applicable. Auditors would verify that biogas came from qualifying renewable biomass, and any specific requirements related to the specific type of digester used to produce the biogas (*e.g.,* ensuring that separated municipal solid waste (MSW) met the requirements of an approved separated MSW plan under 40 CFR 80.1426(f)(5)(ii)(B)). As is currently required, auditors would also conduct quarterly desktop audits of registration, reports, and recordkeeping information for consistency and conformance with applicable regulatory requirements.

As with existing regulatory requirements for other fuels, the QAP auditor would be required to make site visits to the renewable electricity generation facility to verify that necessary equipment is present and that the registered capacity is accurate. The auditor would also verify that only qualifying biogas was used to produce renewable electricity. As is also currently required for RFS QAP participants, auditors would have to conduct quarterly desk audits of the renewable electricity generation facility. In addition to the typical registration, reporting, and recordkeeping review, auditors would also review PTDs from the biogas producer and renewable electricity generator to the OEMs to verify that the correct amounts of biogas and RIN generation allowances were transferred between the three regulated parties.

Finally, desk audits would be required for the eRIN generator (*i.e.,* OEM) to verify that RINs were generated accurately. We would not require a site visit of the OEM's vehicle manufacturing facilities as we do not believe that would be necessary for the verification of eRINs. As part of the quarterly desk audits, auditors would verify that the OEM only generated RINs from the lesser of the total renewable electricity represented by their RIN generation allowances or the renewable electricity used in the OEM's electric vehicle fleet based on vehicle registration records.

Although we are not proposing mandatory QAP participation for eRINs, we seek comment on whether we should require it. We also seek comment on the proposed changes to the RFS QAP to accommodate the verification of eRINs.

O. Compliance and Enforcement Provisions and Attest Engagements

We are proposing compliance and enforcement provisions for eRINs and other biogas-derived renewable fuels similar to the existing compliance and enforcement provisions under the RFS program. Under the RFS program, these provisions serve to deter fraud and ensure that EPA can effectively enforce against non-compliance, and the proposed compliance and enforcement provisions for eRINs and other biogas-derived renewable fuels would serve the same purposes. We discuss the specific proposed provisions below.

1. Prohibited Actions, Liability, and Invalid RINs

In order to deter noncompliance, the regulations must make clear what acts are prohibited, who is liable for violations, and what happens when biogas-derived RINs are found to be invalid. To this end, we are proposing provisions that establish prohibited actions relating to the generation of RINs from biogas-derived renewable fuels; how biogas producers, RNG producers, renewable electricity generators, and RIN generators for renewable electricity and RNG would be held liable when RINs from biogas-derived renewable fuels are determined to be invalid; how biogas producers, RNG producers, and renewable electricity generators may establish affirmative defenses; and provisions related to the treatment of invalid RINs from biogas-derived renewable fuels. Many of these provisions are similar to provisions under the existing RFS program and EPA's fuel quality programs in 40 CFR part 1090.

a. Prohibited Actions

The existing RFS program regulations enumerate specific prohibited acts under the RFS program. In our recent Fuels Regulatory Streamlining Rule, we consolidated the multiple prohibited acts statements in the various fuel quality provisions sections of 40 CFR part 80 into a single prohibition against causing, or causing someone else to, violate any requirement of the subchapter.[303] For the renewable electricity program we are proposing to adopt a prohibited act that mirrors the consolidated prohibited acts provision from the Fuels Regulatory Streamlining Rule, and specify that any person who violates, or causes another person to violate, any requirement in the subpart for biogas-derived renewable fuels, *i.e.,* 40 CFR part 80, subpart E, would be

[303] See 85 FR 29034, 29075 (May 14, 2020); 40 CFR 1090.1700.

liable for the violation. Consolidation of the prohibited actions is not meant to alter the scope of prohibited actions, but instead provides more clarity to the regulated community regarding what actions are prohibited.

b. Liability Provisions for Biogas, RNG, Renewable Electricity, and Biogas-Derived RIN Generators

We are proposing liability provisions similar to the liability provisions in other EPA fuels programs, including the existing RFS program and the recently finalized biointermediates rule. Specifically, we are proposing that when biogas, RNG, renewable electricity, or RINs from a biogas-derived renewable fuel are found to be in violation of regulatory requirements, the biogas producer, RNG producer, renewable electricity generator, and person that generated RINs from a biogas-derived renewable fuel would all be liable. Under this proposed approach, RIN generators for biogas-derived renewable fuels are ultimately responsible for ensuring that any biogas or RNG used to produce the fuel complies with the regulations. The description of feedstocks and processes in registration materials accepted by EPA does not represent a determination by EPA that the subsequent feedstocks and processes used are consistent with the RFS regulations. Rather it merely represents that the information provided at registration would allow for proper RIN generation. The responsibility of ensuring compliance with applicable requirements on a continuing basis for biogas, RNG, renewable electricity, and RINs generated from biogas-derived renewable fuel rests with all parties in the generation/disposition chain.

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

We note that the current RFS regulations include provisions for EPA to take certain administrative actions in cases where a regulated party has been found to engage in a prohibited practice under the RFS regulations. First, under 40 CFR 80.1450(h) EPA may deactivate a company registration in cases where a party has failed to comply with applicable regulatory requirements. Typically, EPA would notify the party of the compliance issue and provide an opportunity for the party to remedy the issue within 30 days before EPA deactivates the party's registration. In cases where the party's actions compromise public health, public interest, or public safety, EPA may deactivate the registration of the party without prior notice to the party. This would likely apply in cases where a party is found to be generating invalid or fraudulent RINs. Second, EPA may administratively revoke an RFS QAP plan for cause. The existing regulation at 40 CFR 80.1469(e)(4) specifies that EPA may revoke a QAP plan ''for cause, including, but not limited to, an EPA determination that the approved QAP has proven to be inadequate in practice.'' Furthermore, the regulation at 40 CFR 80.1469(e)(5) specifies that ''EPA may void *ab initio* its approval of a QAP upon the EPA's determination that the approval was based on false information, misleading information, or incomplete information, or if there was a failure to fulfill, or cause to be fulfilled, any of the requirements of the QAP.''

Under the eRINs proposal, these provisions for administrative action would apply like they do currently under the RFS program. We would intend to deactivate registrations in cases where parties in the eRIN generation/disposition chain have failed to meet their regulatory requirements or when it is identified that the party has willfully generated invalid or fraudulent RINs. The consequences of deactivation of a party in the eRIN generation/disposition chain (*i.e.,* a biogas producer, renewable electricity generator, or OEM) would result in the prohibition of the generation of eRINs from any affected biogas, renewable electricity, or transportation use from the party whose registration was deactivated. Similarly, if EPA has approved a QAP plan for the OEM to generate a verified eRIN, if EPA revokes the QAP plan, the OEM would not be able to generate verified eRINs. We note that these administrative actions would be in addition to any civil penalties. We believe that in combination with the proposed prohibited actions, liabilities, and provisions for dealing with invalid eRINs, regulated parties in the eRINs disposition/generation chain would have a strong incentive to comply with the proposed eRINs regulatory requirement. We are not proposing to amend the existing provisions that allow for EPA to take administrative action to deactivate registrations or revoke QAP plans under the RFS program in this action, and we would consider any comments received as beyond the scope of this action.

c. Affirmative Defenses

We are proposing that biogas producers, RNG producers, and renewable electricity generators may establish affirmative defenses to certain violations if the biogas producer, RNG producer, or renewable electricity generator meets all elements specified to establish an affirmative defense. We allow for affirmative defenses in the RFS program and in our fuel quality program under 40 CFR part 1090 in cases where a party did not cause or contribute to the violation or financially benefit from the violation. Under this proposal, we would allow biogas producers to establish an affirmative defense so long as all the following were met:

- The biogas producer or any of the biogas producer's employees or agents, did not cause the violation;
- The biogas producer did not know or have reason to know that the biogas, RNG, renewable electricity, or RINs were in violation of a prohibition or regulatory requirement;
- The biogas producer has no financial interest in the company that caused the violation;
- If the biogas producer self-identified the violation, the biogas producer notified EPA within five business days of discovering the violation;
- The biogas producer submits a written report to the EPA within 30 days of discovering the violation, which includes all pertinent supporting documentation describing the violation and demonstrating that the applicable elements of this section were met;
- The biogas producer conducted or arranged to be conducted a quality assurance program that includes, at a minimum, a periodic sampling and testing program adequately designed to ensure its biogas meets the applicable requirements to produce the biogas;
- The biogas producer had all affected biogas verified by a third-party auditor under an approved QAP plan; and
- The PTDs for the biogas indicate that the biogas was in compliance with the applicable requirements while in the biogas producer's control.

For RNG producers and renewable electricity generators, we are proposing analogous requirements to establish an affirmative defense except that, instead of relating to biogas producer, the elements would relate to the RNG producer or renewable electricity

generator. We believe these elements to establish an affirmative defense would allow RNG producers and renewable electricity generators to avoid liability only in cases where they could not reasonably be expected to know that a violation took place; for example, if an OEM over-generated RINs for the volume of renewable electricity covered by a RIN generation agreement.

Under the RFS program, the RIN generator is always responsible for the validity of the RIN, and we are therefore not proposing to allow OEMs that generate eRINs the ability to establish an affirmative defense. We expect OEMs that generate eRINs, like all RIN generators under the RFS program, to diligently ensure that other parties that are part of the eRIN generation/distribution chain are meeting their regulatory requirements. Similarly, when the RNG producer generates a RIN for RNG used to make renewable CNG/LNG, the RNG producer would not be able to establish an affirmative defense.

We seek comment on these proposed affirmative defenses for biogas producers, RNG producers, and renewable electricity generators.

d. Invalid Biogas-Derived RINs

We are proposing provisions similar to the existing RFS regulations to address the treatment of invalid biogas-derived RINs. If a biogas-derived RIN is identified to be potentially invalid by the RIN generator, an independent third-party auditor, or the EPA, certain notifications and remedial actions would be required to address the potentially invalid biogas-derived RIN. These provisions are necessary to ensure that RINs represent biogas-derived renewable fuels that were produced from renewable biomass under an EPA-approved pathway and used as transportation fuel.

We are also proposing provisions that require biogas and RNG producers to notify renewable electricity generators if they become aware that inaccurate amounts of biogas or RNG were transferred to the renewable electricity generator. Similarly, the provisions require renewable electricity generators to notify OEM eRIN generators if they become aware that inaccurate amounts of renewable electricity were transferred to the biogas-derived electricity RIN generators. Finally, renewable electricity generators, OEM eRIN generators, and any other persons must notify EPA within five business days of discovery if they become aware of any biogas or RNG producers taking credit for the sale of the same volumes of biogas/RNG to multiple renewable electricity generators, or of renewable electricity generators taking credit for the same volumes of renewable electricity sold to multiple OEM eRIN generators. These provisions are necessary to help prevent the generation of invalid RINs by ensuring that parties in the eRINs generation/disposition chain are informing all affected parties of issues when they arise.

2. Attest Engagements

We are proposing attest engagement provisions similar to the attest engagement provisions in other EPA fuels programs, including the existing RFS program and the recently finalized biointermediates rule. These provisions are designed to ensure compliance with the regulatory requirements, and this action simply extends those requirements to the newly regulated parties under this proposal. Specifically, we are proposing that biogas producers, RNG producers, renewable electricity generators, and OEMs separately undergo an annual attest engagement. Annual attest engagements are annual audits of registration information, reports, and records to ensure compliance with regulatory requirements. Under our fuel quality and RFS programs, we require that attest engagements be performed by an independent third-party certified professional accountant that notifies EPA of any discrepancies they identify in their prepared report. The audited parties typically correct areas identified by the attest auditor, and we review the reports for areas of concern that need to be addressed in future actions. We have a long history of successfully employing annual attest engagements to help ensure integrity of our fuel quality and RFS programs, and we believe that attest engagements would be an important component of third-party oversight of the proposed eRINs program.

Under this proposal, attest engagements for biogas and RNG producers, renewable electricity generators, and OEMs would consist of an audit of underlying records, reports, and registration information (including the third-party engineering review report) for biogas production, RNG producers, renewable electricity generation, and RIN generation as applicable. These proposed attest engagements would follow the same general requirements for other attest engagements under EPA's other fuel programs. For example, an independent auditor (*i.e.,* a CPA without any interest in the audited party) would conduct the audit on a representative sample of information, prepare the annual attest engagement report detailing any discrepancies or findings from the audit, and submit the report to EPA by the annual June 1st deadline.

We believe attest engagements are appropriate for parties involved in the generation of eRINs as they would serve to maintain consistency across the three regulated parties and serve as valuable third-party oversight. We seek comment on requiring attest engagements for biogas and RNG producers, renewable electricity generators, and OEMs involved in the proposed eRINs program.

P. Foreign Producers

Under the RFS program, RINs may be generated for foreign-produced renewable fuels that are imported for use in the covered location either by RIN-generating foreign producers or by the importers of the renewable fuel. Currently, we have registered several landfills in Canada that produce biogas that is upgraded to RNG and injected onto the commercial pipeline system. This Canadian RNG is compressed to make renewable CNG/LNG that is used as transportation fuel in the covered location, and domestic RIN generators generate RINs for the Canadian RNG after the they have demonstrated that the RNG was used as transportation fuel in the form of renewable CNG/LNG. We are proposing similar provisions for eRINs. In the case of eRINs, we are proposing that OEMs would be able to generate eRINs for foreign-generated renewable electricity and domestic-generated renewable electricity produced from foreign-produced RNG.

1. Foreign-Produced RNG to Renewable Electricity

We are proposing to allow for the use of foreign-produced biogas to produce renewable electricity that could in turn be used to generate eRINs if an OEM could demonstrate that the renewable electricity was used as transportation fuel in the contiguous U.S. Foreign produced biogas would be eligible to participate in the eRIN program so long as it is produced consistent with an approved pathway and applicable requirements and either upgraded to RNG and injected onto a commercial pipeline system that serves the covered location, or is used to produce renewable electricity at a renewable electricity generation facility (either domestic or foreign) that transmits electricity into the commercial electric grid serving the conterminous U.S.

A foreign RNG producer would have the flexibility of either being a RIN-generating foreign producer or having the importer of the RNG generate a RIN for the RNG. This is the same flexibility that we currently provide other

imported renewable fuels, and we believe the same approach is appropriate for RNG. If the foreign RNG producer chooses to generate RINs, the foreign RNG producer would have to meet all the additional requirements applicable to RIN-generating foreign producers described in 40 CFR 80.1466, which include committing the RIN-generating foreign producer to U.S. jurisdiction and the posting of a bond commensurate with the number of RINs generated. We note that in the case where a foreign party takes title to an assigned RNG RIN, under the current regulations that party would have to comply with the additional requirements for foreign RIN owners specified at 40 CFR 80.1467. These additional requirements for foreign RIN owners include similar commitments to those we impose on RIN-generating foreign producers, and we are not proposing to modify these requirements.

In the case where the RNG importer generates the RINs for imported RNG, the importer would have to meet all applicable requirements for the generation of RINs from an imported renewable fuel under 40 CFR 80.1426. In both cases, as discussed in more detail in Section IX.I, the RIN generated for the foreign produced RNG would need to be assigned to the specific volume of RNG injected onto the commercial pipeline system and would need to be separated and retired by the renewable electricity generator when the RNG was used to produce renewable electricity.

2. Foreign-Generated Renewable Electricity

We are proposing to allow for the inclusion of foreign-generated renewable electricity for the generation of eRINs. Under this proposal, the foreign-generated renewable electricity would have to be transmitted on the commercial electric grid serving the contiguous U.S. We believe the same principles discussed in Section VIII.E.3.a that make it appropriate to assume that renewable electricity transmitted via the commercial electric grid serving the contiguous U.S. is used as transportation fuel within the U.S. would also apply if the electricity is transmitted on the same grid but is generated in Canada or Mexico.

Foreign electricity generators and foreign biogas producers would have to meet the same proposed regulatory requirements that domestic biogas producers and renewable electricity generators would have to meet. We are also proposing that in order to have eRINs generated for the foreign-produced renewable electricity, the foreign renewable electricity generator and the foreign biogas producer that supplied the biogas would have to meet the additional requirements for foreign renewable fuel producers at 40 CFR 80.1466. This approach is identical to the treatment of non-RIN generating foreign producers under the existing program for imported liquid renewable fuels.

3. Foreign OEMs

Under this proposal, similar to the treatment of foreign renewable fuel producers, OEMs that are based outside of the U.S. could either register as a foreign RIN generator or register a domestic subsidiary as the eRIN generator for their continental U.S. light-duty EV fleet. If the OEM registers as a foreign RIN generator, the OEM would have to comply with the applicable requirements for RIN-generating foreign renewable fuel producers. For foreign OEMs, this would include posting a bond for the amount of eRINs they generate and committing to U.S. jurisdiction for purposes of compliance with the RFS program requirements and enforcement. These requirements are necessary to ensure that EPA is able to enforce against the foreign OEM in the event that the OEM generates invalid RINs or otherwise fails to meet requirements under the RFS program.

If the foreign OEM registers a domestic subsidiary to be the eRIN generator, the domestic subsidiary would not need to post a bond or commit to U.S. jurisdiction. We note, that due to the parent company liability provision at 40 CFR 80.1461, the foreign parent OEM company would still be subject to liability for violations of the RFS regulations. We seek comment on this approach.

IX. Other Changes to Regulations

A. RFS Third-Party Oversight Enhancement

Independent third-party auditors and professional engineers play critical roles in ensuring the integrity of the RFS program. The independent third-party professional engineer ensures that a renewable fuel producer's facility can actually produce renewable fuel in accordance with the RFS regulations and thus generate valid RINs. The independent third-party auditor, when hired by a renewable fuel producer, verifies that the renewable fuel produced adheres to its registered and approved feedstocks and processes, and therefore verifies the RINs generated under the RFS QAP. Given EPA's recent promulgation of a program allowing renewable fuel to be produced from biointermediates,[304] we expect there will be an expansion in the scope and number of regulated entities under the RFS program, making third-party verifications even more critical.

We proposed changes to third-party verifications and submissions in the 2016 Renewables Enhancement Growth and Support (REGS) rule;[305] however, those proposed changes were not finalized. We are now re-proposing (*i.e.,* proposing anew) some, but not all of those changes in order to receive further comment and public input. Given the length of time since the 2016 proposal, we believe that the proposed changes would benefit from a review of implementation of the program in the intervening years and from renewed consideration by the public. Any comments that were previously submitted on the 2016 REGS rulemaking must be resubmitted to the docket for this action. We will not consider any comments submitted on the 2016 rulemaking that are not resubmitted in response to this re-proposal.

As we explained in 2016, the EPA has taken a number of enforcement actions against renewable fuel producers that generated invalid RINs, and the extent of the unlawful and fraudulent activities associated with the RFS program, as demonstrated by these cases, is troubling given the roles that independent third parties play in the RFS program. Because we are concerned that independent third-party auditors and professional engineers may not be mitigating unlawful and fraudulent activities in the RFS program to the extent needed for a successful program, we are proposing to strengthen requirements that apply to these entities. Specifically, we are proposing to modify the requirements for the independent third-party auditors that use approved QAPs to audit renewable fuel production to verify that RINs were validly generated by the producer. The purpose of these modifications would be to strengthen the independence requirements for QAP providers that protect against conflicts of interest. We are also proposing several changes to the requirements for the professional engineer serving as an independent third-party conducting an engineering review for a renewable fuel producer as part of their RFS duties in connection to a renewable fuel producer's registration, including updates.

The changes to the regulations that we are proposing to make fall into six areas. First, we are proposing to strengthen the

[304] 87 FR 39600 (July 1, 2022).

[305] 81 FR 80828 (November 16, 2016).

independence requirements for third-party professional engineers by requiring those engineers to comply with similar requirements, including the additional requirements we are proposing, to those that currently apply to independent third-party auditors.

Second, we are proposing the third-party engineer sign an electronic certification when submitting engineering reviews to EPA to ensure that the third-party engineer has personally reviewed the required facility documentation, including site visit requirements, and that the third-party engineer meets the applicable independence requirements. Currently, the third-party engineer signs a certification statement within the engineering review documents. We believe that an electronic certification at the time of submission will help to ensure that the third-party engineer conducts their duties with impartiality and independence.

Third, we are proposing that third-party professional engineers provide documents and more detailed engineering review write-ups that demonstrate the professional engineer performed the required site visit and independently verified the information through the site visit and independent calculations.

Fourth, we are proposing that the required three-year engineering review updates are conducted by a third-party engineer while the facility being reviewed is operating to produce renewable fuel. We believe that the efficacy of a third-party engineer's review of a facility is greatly enhanced when the facility is operating under normal conditions and not in a shut down or maintenance posture. Conducting the engineering review while the facility is operational would allow the third-party engineer to accurately and completely verify the elements of the engineering review necessary to certify to EPA that the facility is in compliance with its registration materials.

Fifth, we are proposing that a third-party engineer employed by an independent third-party auditor who is involved in a specified activity performed by the auditor could not be employed by the regulated party, currently or previously, within 12 months from when the regulated party hired the independent third-party to provide the specified activities. We received comments to the REGS proposed rule that due to a limited number of RFS experts to perform both engineering and auditing activities, a prohibition on providing ''cross services'' between third parties would be unworkable. Instead, we are proposing in this rulemaking a narrower and shorter limitation on third parties, consistent with other EPA programs such as the conventional fuels program, to help ensure independence between third parties and regulated parties.

Sixth, we are proposing prohibited acts and liability provisions applicable to third-party professional engineers to reduce the potential of a conflict of interest with the renewable fuel producer. The purpose of these requirements would be to help the EPA and obligated parties better ensure that third-party audits and engineering reviews are being correctly conducted, provide greater accountability, and ensure that third-party auditors and professional engineers maintain a proper level of independence from the renewable fuel producer.

Taken together, we believe these six proposed requirements would help avoid RIN fraud by strengthening third-party verification of renewable fuel producers' registration information. Additional information on third-party auditors and professional engineers is provided below.

1. Third-Party Auditors

Third-party independence is critical to the success of any third-party compliance program. We believe that the independence requirements applicable to third-party auditors in the RFS program should be clarified and strengthened to further minimize (and hopefully eliminate) any conflicts of interest between auditors and renewable fuel producers that might lead to improper RIN validation. We are proposing language that clarifies the current prohibition against an appearance of a conflict of interest to include:

- Acting impartially when performing all auditing activities.
- Disallowing a person employed by an independent third-party auditor who is involved in a specified activity performed by the auditor to be employed by the regulated party, currently or previously, within 12 months from when the regulated party hired the independent third-party to provide the specified activities.

These provisions would be intended to prevent third-party auditors from seeking or obtaining employment from producers for which the auditors are conducting QAP verification activities. In both instances, we believe that third-party auditors could be unduly influenced in their QAP verification activities as a result. With regard to companies that employ personnel who previously worked for or otherwise engaged in consulting services with a producer, those companies would meet the independence criteria when such personnel do not participate on, manage, or advise the audit teams. Additionally, employees of these companies would not be prohibited from accepting future employment with a producer as long as they were not involved in performing or managing the audit.

In the RFS QAP final rule, we stated that we continued to be concerned that allowing an auditor to also perform engineering reviews and attest engagements would tie the auditor's financial interests too closely with the renewable fuel producer being audited and could create incentives for auditors to fail to report potentially invalid RINs.[306] However, we did not want to exclude potential third-party auditors that had significant knowledge of the RFS program and renewable fuel production facilities from participating in the QAP program. Therefore, the final rule prohibited third-party auditors from continuing to provide annual attest engagements and QAP implementation to the same audited renewable fuel producer but allowed third-party auditors to continue to conduct engineering reviews. We received significant comments to the REGS proposed rule that proposed to preclude third parties from performing engineering reviews and providing QAP services to the same producers. As a result, we are not re-proposing this prohibition.

2. Third-Party Professional Engineers

Engineering reviews from independent third-party professional engineers are integral to the successful implementation of the RFS program. Not only do they ensure that RINs are properly categorized, but they also provide a check against fraudulent RIN generation. As we have designed our registration system to accommodate the association between third-party auditors and renewable fuel producers to implement the RFS QAP, we have realized that both the way engineering reviews are conducted and the nature of the relationships among the third-party professional engineers, affiliates, and renewable fuel producers are analogous to third-party auditors and renewable fuel producers. As a result, we are proposing to strengthen the independence requirements for third-party professional engineers by requiring those engineers to comply with similar requirements (including the additional requirements we are

[306] 79 FR 42078 (July 18, 2014).

proposing) to those that currently apply to independent third-party auditors.

We are also proposing to improve the RFS registration requirements for three-year engineering review updates by requiring site visits to take place when the facility is producing renewable fuel. Comments received to this requirement in the REGS proposed rule noted that a facility would be required to generate fuel but not RINs if EPA required the engineering review site visit for a facility's initial registration. However, by the three-year engineering review, facilities should reasonably be able to coordinate with third-party engineers to ensure they are operational for the engineering review. This would provide the regulated community and the EPA with greater confidence in the production capabilities of the renewable fuel facility. Since the adoption of the RFS2 requirements in 2010, most engineering reviews have been conducted by a handful of third-party professional engineers. Some of these engineers are using templates that make it difficult for the EPA to determine whether registration information was verified.

We are concerned that, in some instances, the third-party engineers are relying too heavily on information provided by the renewable fuel producers, and not conducting a truly independent verification. In order to provide greater confidence in third-party engineering reviews, we are proposing that the engineering review submission include evidence of a site visit while the facility is producing renewable fuel(s) that it is registered to produce. We also propose to incorporate the EPA's current interpretation and guidance into the regulations regarding actions that third-party engineers must take to verify information in the renewable fuel producer's registration application. The amendments would explain that in order to verify the applicable registration information, the third-party auditor must independently evaluate and confirm the information and cannot rely on representations made by the renewable fuel producer. We also propose to require the third-party engineer to electronically certify that the third-party meets the independence requirements whenever the third-party submits engineering reviews or engineering review updates to EPA. Currently, the third-party engineer signs a certification statement within the engineering review documents. Requiring the certification to be signed at the time of submission will remind the third-party engineer of the independence requirements prior to submitting the engineering reviews.

We believe these amendments would help provide greater assurance that third-party professional engineering reviews are based upon independent verification of the required registration information in 40 CFR 80.1450, helping to provide enhanced assurance of the integrity of the registration materials submitted by the facility, as well as the renewable fuel they produce.

Finally, we are proposing prohibited activities for third-party professionals failing to properly conduct an engineering review, or failing to disclose to the EPA any financial, professional, business, or other interest with parties for whom the third-party professional engineer provides services for under the RFS registration requirements. The EPA staff that review RFS registrations have concerns that third-party professional engineers may be acting, independently or through an affiliate, as consultants and agents for the same renewable fuel producer, or that, directly or through an affiliate, they may have a financial interest in the renewable fuel producer, may not appropriately conduct engineering reviews, or may not meet the requirements for independence to qualify as a third-party. We believe that making third-party professional engineers more accountable for properly conducting engineering reviews under the regulations and requiring that they interact more directly with the EPA would help our ability to identify potential conflicts of interests and bring enforcement actions against third-party professional engineers should an issue arise.

B. Deadline for Third-Party Engineering Reviews for Three-Year Updates

We are proposing to require that third-party engineers conduct engineering review site-visits no sooner than July 1 of the calendar year prior to the January 31 deadline for three-year registration updates. Under the existing regulations, renewable fuel producers are required to have a third-party engineer conduct an updated engineering review three years after initial registration. The regulations state that the three-year engineering review reports are due by January 31 after the first year of registration. However, the regulations do not specify when the third-party engineer has to conduct the site visit. We have received several inquiries by renewable fuel producers and third-party engineers concerning when the third-party engineer must conduct the site visit ahead of the January 31 deadline. We originally published guidance that noted that the site visits for three-year updates should occur no later than 120 days prior to the January 31 deadline. Due to extenuating circumstances, we have on a case-by-case basis allowed for site visits to occur up to a full calendar year prior to the deadline.

We now have concerns that third-party engineers are conducting site visits well ahead of the January 31 deadline and that the renewable fuel production facilities they visited may have undergone significant alteration between the time of the site visit and the time that the third-party engineering review report is due.

To address our concern, we are proposing that the site visit occur no sooner than July 1 of the preceding calendar year. We believe that this amount of time would provide third-party engineers enough time (seven months) to conduct site visits and prepare and submit engineering review reports to EPA without the site visit becoming out-of-date. We note that this seven-month period would be greater than the originally provided 120-day period under prior EPA guidance. We believe more time is warranted as the number of facilities that require three-year updates has increased. We seek comment on this proposed deadline and whether more or less time is warranted to balance the efficacy of the third-party site visit with ensuring enough time for renewal fuel producers to satisfy their three-year registration update requirements.

We are also proposing to specify which batches of RINs should be included in the V_{RIN} calculation portion of the three-year registration update. Under this proposal, third-party engineers must select from batches of renewable fuel produced through at least the second quarter of the calendar year prior to the applicable January 31 deadline for V_{RIN} calculations. We believe this is appropriate because some third-party engineers conduct V_{RIN} calculations for facilities' RIN generation materials that only cover two years. Furthermore, we have noticed that the period from which batches are selected for V_{RIN} calculations vary significantly across third-party engineers and we want to ensure that this portion of the engineering review update is conducted consistently. We seek comment on this proposed change.

C. RIN Apportionment in Anaerobic Digesters

In the Pathways II rule, we updated RIN-generating pathways using biogas as a feedstock to allow D3 RINs to be generated for renewable compressed natural gas (CNG) and renewable liquefied natural gas (LNG) produced from biogas from digester types that

process only predominately cellulosic[307] feedstocks (*i.e.,* municipal wastewater treatment facility digesters, agricultural digesters, and separated MSW digesters), as well as from the cellulosic components of biomass processed in other waste digesters.[308] We also created a renewable CNG/LNG pathway to allow for D5 RINs to be generated for biogas produced from other waste digesters;[309] this pathway must be used if the feedstock being processed in a digester is not predominantly cellulosic. If a party wishes to simultaneously convert a predominately cellulosic feedstock and a non-predominantly cellulosic feedstock in a waste digester, it must apportion the resulting RINs under the appropriate D3 and D5 pathways accordingly. To support this calculation, the regulations at 40 CFR 80.1450(b)(1)(xiii)(B) requires parties to calculate and submit to EPA as part of their registration materials the cellulosic converted fraction, *i.e.,* the portion of a cellulosic feedstock that is converted into renewable fuel. The cellulosic converted fraction calculation is based on measurements of cellulose, and these measurements must be obtained using a method that would produce reasonably accurate results. For a heterogeneous feedstock such as separated food waste, which may be simultaneously converted with cellulosic feedstocks in waste digesters, the cellulosic content can vary widely between batches, making it very difficult for renewable fuel producers to determine, with any degree of accuracy, the cellulosic content of the feedstock at the time of registration.

Since the Pathways II rule was finalized, we have had numerous inquiries from stakeholders about how to apportion RINs in the specific case wherein feedstocks that are not predominantly cellulosic—specifically, separated food waste—are simultaneously converted with predominantly cellulosic feedstocks into biogas in a digester.[310] This processing condition is desirable for stakeholders because simultaneous conversion in a single digester can lead to higher biogas yields than processing in separate digesters[311] with less capital investment. Some stakeholders have asked whether EPA would consider the separated food waste in these instances to be a predominantly cellulosic feedstock, which would allow producers to obtain D3 RINs for all biogas produced from the digester. However, in the Pathways II rule, we did not find that separated food waste necessarily meets the predominantly cellulosic criteria,[312] and we continue to believe it generally does not have an adjusted cellulosic content greater than 75 percent. Therefore, biogas-derived renewable fuels produced from biogas produced from mixed feedstocks that include separated food waste are not eligible to generate 100 percent D3 RINs and are subject to the registration requirements in 40 CFR 80.1450(b)(1)(xiii)(B), which includes testing to determine the cellulosic content of the feedstocks. Other inquiries have sought clarification about whether it is possible to apportion the predominantly cellulosic feedstock as D3 and the separated food waste as D5 without needing to test the cellulosic composition of individual or mixed feedstocks. Proposed solutions by stakeholders focused on determining the cellulosic biogas converted fraction from processing just the predominantly cellulosic feedstock, for example by assuming that the predominantly cellulosic feedstock produces the same amount of methane when it is processed alone (based on a biochemical methane potential test) as when it is processed in an anaerobic digester with other feedstocks. However, this approach is not allowed under the existing regulations in 40 CFR 80.1450(b)(1)(xiii)(B)(3), since the existing regulations require the cellulosic converted fraction to be based on chemical testing for cellulosic content, without any allowance for testing predominantly cellulosic feedstocks separately in lieu of chemical testing of cellulosic content. However, even if such chemical testing was undergone for registration, we believe the existing approach in the regulations may not be acceptable due to the variability of the food waste feedstock composition which makes it likely that any converted fraction submitted for the purpose of registration is not representative of the actual composition of the feedstock used to produce biogas. This lack of accuracy could lead to cellulosic RINs being generated on non-cellulosic feedstocks.

EPA's existing registration and RIN apportionment equations were designed assuming that the converted fractions of the cellulosic and non-cellulosic feedstocks could be accurately determined through chemical testing. Currently, these requirements apply to all situations in which predominantly cellulosic[313] and non-cellulosic feedstocks are simultaneously converted to produce a single type of fuel.[314] However, apportioning RINs for biogas produced from co-processed feedstocks is distinct from apportioning RINs for other co-processed cellulosic and non-cellulosic feedstocks, *e.g.,* corn kernel fiber co-processed with corn starch. In the case of feedstocks co-processed in a digester, we have determined that a number of the existing requirements are unnecessary or otherwise inappropriate. For example, chemical data showing the cellulosic content of the mixed feedstocks is not necessary because the feedstocks can be measured separately before they are mixed (and measurement may not be needed if the separate feedstocks have already been determined to be predominantly cellulosic or non-cellulosic). Additionally, the regulatory apportionment equations use dry mass, which is less accurate for biogas than volatile solids, which is the value typically used in the digester industry.[315] The apportionment equations also include an energy component, which, as noted by a commenter in a previous rulemaking, can underweight biogas from feedstocks with lower energy content.[316] Finally, even if cellulosic testing were conducted on select batches of feedstock, the highly heterogeneous composition of separated food waste raises the likelihood that sampling would not be representative, which could cause D3 RINs to be generated when the fuel is not derived from cellulosic biomass.

At the same time, there are also features of co-processing in a digester

[307] A predominately cellulosic feedstock is a feedstock with an adjusted cellulosic content, as defined in 40 CFR 80.1401, of greater than 75 percent.

[308] EPA's regulations also allow D3 RINS to be generated for renewable CNG/LNG produced from biogas from landfills.

[309] See Table 1 to 40 CFR 80.1426; 79 FR 42168 (July 18, 2014).

[310] See Byron Bunker (EPA), ''Reply to American Biogas Council on the Treatment of Agricultural Digesters under the Renewable Fuel Standard (RFS) Program,'' March 15, 2017.

[311] Karki et al. Bioresource Technology 330 (2021) 125001. DOI: 10.1016/j.biortech.2021.125001.

[312] 79 FR 42140 (July 18, 2014).

[313] For feedstocks that have been determined to be predominantly cellulosic, see 79 FR 42140 (July 18, 2014).

[314] 40 CFR 80.1426(f)(3)(vi).

[315] Dry mass, also referred to as total solids in the digester industry, includes ash, which consists of salts that are is left over after combusting the total solids. Due to the lack of organic matter, ash is generally considered to not contribute to methane production. The volatile solids term excludes the ash content, so it is generally regarded as a more accurate measure of the substance that is capable of producing methane.

[316] See comment submitted by Fulcrum BioEnergy, Inc., Docket Item No. EPA–HQ–OAR–2021–0324–0434.

that make it reasonable to consider a different regulatory approach to RIN apportionment. The feedstocks in question are generated as physically separate streams, so that mass, moisture content, and methane production potential of each feedstock can be determined before mixing. This possibility of measuring physically separated feedstocks individually is not contemplated by the current apportionment equations. Further, we understand that parties interested in co-processing predominantly cellulosic feedstocks with separated food waste are not planning on claiming any credit for the cellulosic components in the food waste, which means that chemical analysis of the cellulosic content of the food waste feedstock and digestate is not required. In addition to the feedstocks being physically separate, mixing of typical feedstocks in anaerobic digestion does not lead to a decrease in biogas production relative to when they are processed together, reducing the risk of D3 RINs being generated from non-cellulosic feedstock.[317]

Based on the differences discussed above, we are proposing new and separate equations to determine feedstock energy for when predominantly cellulosic and non-predominantly cellulosic feedstocks are simultaneously converted in anaerobic digesters. The cellulosic feedstock energy equation is similar to the equation in 40 CFR 80.1426(f)(3)(vi), with a few modifications. The proposed equation uses a volatile solids measurement since non-volatile solids do not generally produce biogas, making this equation more accurate than the one in 40 CFR 80.1426(f)(3)(vi). We are also specifying that the feedstock energy used in the equation should be the energy content of biogas instead of the feedstock to avoid disproportionate RIN generation for higher energy feedstock and so that the equation that results is the energy content of the biogas which is used as the feedstock to the renewable fuel pathway. The non-predominantly cellulosic feedstock energy equation sets the non-predominantly cellulosic feedstock energy to be the difference between total biogas produced and cellulosic biogas as calculated by the cellulosic feedstock apportionment equation. We believe these updated equations would ensure that cellulosic RINs are only generated for predominately cellulosic feedstocks because they make a conservative assumption of the cellulosic biogas production and ensure that the biogas produced from non-predominantly cellulosic feedstocks generates entirely non-cellulosic RINs. Along with this updated equation, we are proposing biogas producers keep records of feedstocks necessary to recompute apportionment calculations.

To support this proposed apportionment, we are proposing separate registration requirements to determine the converted fraction of the predominantly cellulosic feedstock used in an anerobic digester when it is simultaneously converted with a non-predominantly cellulosic feedstock. Instead of chemical data supporting a cellulosic converted fraction as required under the existing regulations, we are proposing that a facility producing biogas from anaerobic digestion be required at registration to either choose a predetermined, conservative value for converted fraction (explained in more detail below) or provide the following:

- Operational data showing the biogas yield from digesters which process solely the cellulosic feedstock(s) and which operate under similar conditions as the digesters addressed in the registration;
- A description including any calculations demonstrating how the data were used to determine the cellulosic converted fraction; and
- The cellulosic converted fraction that will be used in the RIN apportionment.

Operational data used to determine the cellulosic converted fraction would be obtained at a particular range of temperatures, pressures, residence times, feedstock composition and other process variables. Since biogas production can change based on processing conditions, we are proposing a requirement that the registrant identify the conditions in its registration under which the facility would need to operate to properly apportion RINs. In specifying those processing conditions, we are proposing a requirement that parties place limitations on a combination of temperature, amount of each cellulosic feedstock source, solids retention time, hydraulic retention time, or other processing conditions established at registration which may impact the conversion of the predominantly cellulosic feedstock. These limitations must be based on the data used to derive the cellulosic converted fraction so that when simultaneously converting multiple feedstocks, the facility is operating under conditions essentially the same as those for the digesters from which the cellulosic converted fraction was derived. For example, a registrant that calculates a cellulosic converted fraction from historical data of a given digester processing a single type of cellulosic feedstock could use that historical operational data to identify the limitations on temperature, residence times, and other operational variables such that the converted fraction remains valid.

We are not proposing to require registrants to submit data on whether their converted fraction determined from processing a single feedstock applies when processing multiple feedstocks because evidence from literature shows that cellulosic converted fractions generally do not decrease, and in some cases increase, when adding additional feedstocks such as food waste under identical processing conditions.[318] Our approach thus conservatively assumes that the cellulosic converted fraction is the same when processing a single feedstock and multiple feedstocks, which we believe would result in digester operators using a conservative estimate of the biogas produced from cellulosic feedstock when simultaneously processing it with non-cellulosic feedstock. The evidence from literature allows us to simplify the registration process while still providing us with the assurance that RINs are generated with the appropriate D-code.

Instead of providing operational data, we are also proposing to allow registrants an alternative to select a standard converted fraction value specified in the regulations for the specific cellulosic feedstock which they are simultaneously converting with a non-predominantly cellulosic feedstock in anaerobic digesters. We are proposing specific standard values for four cellulosic feedstocks (bovine manure, chicken manure, swine manure, and WWTP sludge), which are 50 percent of the measured biochemical methane potential (BMP) obtained from published literature.[319] BMP typically results in a higher converted fraction than when the same feedstock is processed in industrial scale digesters. One study that looked at two digesters over the course of less than a year,

[317] Karki et al. Bioresource Technology 330 (2021) 125001. DOI: 10.1016/j.biortech.2021.125001.

[318] Karki et al. Bioresource Technology 330 (2021) 125001. DOI: 10.1016/j.biortech.2021.125001.

[319] Dairy manure value comes from Labatut et al. (2011) Bioresource Technology, 102, p. 2255–2264. DOI: 10.1016/j.biortech.2010.10.035. Swine manure data comes from Vedrenne et al. (2008) Bioresource Technology, 99, p. 146–155. DOI: 10.1016/j.biortech.2006.11.043. Chicken manure data comes from Li et al. (2013) Applied Biochemistry Biotechnology 171, p. 117–127. DOI: 10.1007/s12010–013–0335–7. Municipal sludge data comes from Holliger et al. (2017) Frontiers in Energy Research, 5, 12. DOI: 10.3389/fenrg.2017.00012. Values were converted using the ideal gas law at the stated or inferred conditions and 21,496 Btu lower heating value methane per lb methane.

identified sustained periods where full scale digesters produced over 30 percent less methane than predicted by BMP, and recommended that designers of digestion systems should assume 10–20 percent lower methane production in full scale digesters than from BMP.[320] Given the limited types of feedstocks, the limited number of digesters evaluated in this study, and the different goals behind the recommendations,[321] we chose a more conservative estimate of 50 percent lower methane production and added specific processing requirements to ensure that D3 RINs generated meet the statutory goal.[322] We welcome comments suggesting other default values of converted fractions based on other data sources, such as operational data. Comments presenting alternative converted fraction values should also contain information about the underlying data, discussion of why the underlying data is representative (for example, by describing the process by which data was selected) and how the converted fraction was derived from operational data, and a list of operational conditions on which the data was based.

We are proposing that the requirements discussed in this subsection only apply for processes using biogas from anaerobic digestion that simultaneously convert multiple feedstocks where at least one is not predominantly cellulosic. We are seeking comment on whether the proposed approach should be more limited, for example, to digesters processing separated food waste, or whether some aspects of these proposed changes could be applied more broadly, for example, to all simultaneous conversion of renewable feedstocks where one or more does not meet the minimum 75 percent cellulosic content requirement and when the feedstocks are produced separately and can be separately measured. Commenters should provide examples of how expanding or restricting the use of these proposed changes beyond pathways for the production of renewable CNG/LNG or renewable electricity from biogas produced in anaerobic digesters would be beneficial or problematic, using examples of specific production pathways and processes.

As with other biogas, biogas produced from simultaneously converting predominantly cellulosic and non-predominantly cellulosic feedstocks is also eligible to be used as renewable CNG/LNG, a biointermediate, or as renewable electricity. We are proposing that the different D-codes be tracked through product transfer documents from biogas producers, RNG producers, and renewable electricity generators as well as reporting of D-code information into EMTS. Under this proposed approach, biogas producers would specify the proportion of biogas by D-code on their PTDs. The parties using the biogas to generate RINs for RNG (as discussed in Section IX.I) and renewable electricity (as discussed in Section VIII) would use this proportion to calculate the appropriate number of D3 and D5 RINs.

D. BBD Conversion Factor for Percentage Standard

In the proposal for the 2020–2022 standards, we proposed a change to the conversion factor used in the calculation of applicable percentage standards for BBD.[323] We did not finalize that proposed change in the final rulemaking which established the applicable standards for 2020–2022. We are now reproposing that change for implementation for compliance years 2023 and beyond, and are including data from 2021 in the proposed determination of the appropriate revised conversion factor.

In the 2010 RFS2 rule, we determined that because the BBD standard was a ''diesel'' standard, its volume must be met on a biodiesel-equivalent energy basis.[324] In contrast, the other three standards (cellulosic biofuel, advanced biofuel, and total renewable fuel) must be met on an ethanol-equivalent energy basis. At that time, biodiesel was the only advanced renewable fuel that could be blended into diesel fuel, qualified as an advanced biofuel, and was available at greater than de minimis quantities.

The formula for calculating the applicable percentage standards for BBD needed to accommodate the fact that the volume requirement for BBD would be based on biodiesel equivalence while the other three volume requirements would be based on ethanol equivalence. Given the nested nature of the standards, however, RINs representing BBD would also need to be valid for complying with the advanced biofuel and total renewable fuel standards. To this end, we designed the formula for calculating the percentage standard for BBD to include a factor that would convert biodiesel volumes into their ethanol equivalent. This factor was the same as the Equivalence Value for biodiesel, 1.5, as discussed in the 2007 RFS1 final rule.[325] The resulting formula[326] (incorporating the recent modification to the definitions of GE_i and DE_i)[327] is shown below:

$$Std_{BBD,i} = 100 \times \frac{RFV_{BBD,i} \times 1.5}{(G_i - RG_i) + (GS_i - RGS_i) - GE_i + (D_i - RD_i) + (DS_i - RDS_i) - DE_i}$$

Where:

$Std_{BBD,i}$ = The biomass-based diesel standard for year i, in percent.

$RFV_{BBD,i}$ = Annual volume of biomass-based diesel required by 42 U.S.C. 7545(o)(2)(B) for year i, in gallons.

G_i = Amount of gasoline projected to be used in the 48 contiguous states and Hawaii, in year i, in gallons.

D_i = Amount of diesel projected to be used in the 48 contiguous states and Hawaii, in year i, in gallons.

RG_i = Amount of renewable fuel blended into gasoline that is projected to be consumed in the 48 contiguous states and Hawaii, in year i, in gallons.

RD_i = Amount of renewable fuel blended into diesel that is projected to be consumed in the 48 contiguous states and Hawaii, in year i, in gallons.

GS_i = Amount of gasoline projected to be used in Alaska or a U.S. territory, in year

[320] Holliger et al. (2017) Frontiers in Energy Research, 5, 12. DOI: 10.3389/fenrg.2017.00012.

[321] When designing a digester and gas treatment system, one would like to maximize the amount of fuel or energy and using a slight overestimate of biogas production is less of a problem than in the RFS program, where overestimating cellulosic production of biogas would lead to invalidly generated RINs.

[322] See memo ''Calculation of cellulosic converted fraction values from biochemical methane potential,'' available in the docket for this action.

[323] 86 FR 72474 (December 21, 2021).

[324] See 75 FR 14670, 14682 (March 26, 2010).

[325] See 72 FR 23900, 23921 at Table III.B.4–1 (May 1, 2007).

[326] See 40 CFR 80.1405(c).

[327] See 85 FR 7016 (February 6, 2020).

i, if the state or territory has opted-in or opts-in, in gallons.

RGS_i = Amount of renewable fuel blended into gasoline that is projected to be consumed in Alaska or a U.S. territory, in year i, if the state or territory opts-in, in gallons.

DS_i = Amount of diesel projected to be used in Alaska or a U.S. territory, in year i, if the state or territory has opted-in or opts-in, in gallons.

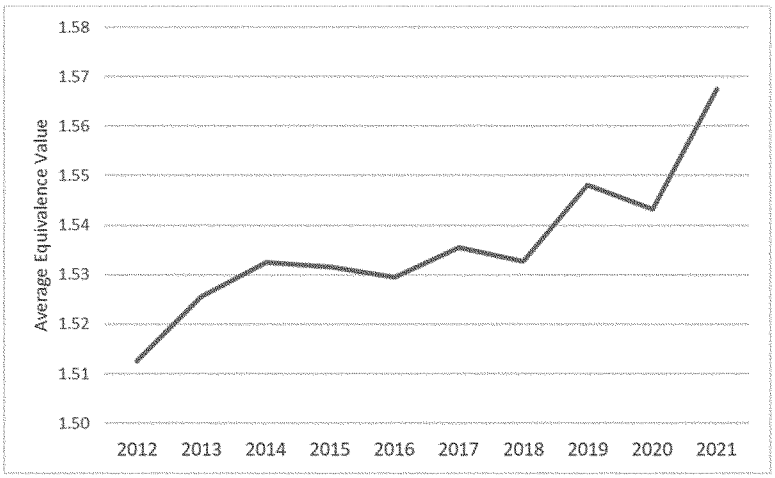
RDS_i = Amount of renewable fuel blended into diesel that is projected to be consumed in Alaska or a U.S. territory, in year i, if the state or territory opts-in, in gallons.

GE_i = The total amount of gasoline projected to be exempt in year i, in gallons, per §§ 80.1441 and 80.1442.

DE_i = The total amount of diesel projected to be exempt in year i, in gallons, per §§ 80.1441 and 80.1442.

In the years following 2010 when the percent standard formula for BBD was first promulgated, advanced renewable diesel production has grown. Most renewable diesel has an Equivalence Value of 1.7, and its growing presence in the BBD pool means that the average Equivalence Value of BBD has also grown.[328]

Figure IX.D-1: Average Equivalence Value for BBD Containing Both Biodiesel and Renewable Diesel



Source: Consumption of Biodiesel and Renewable Diesel with D4 RINs according to Data from EMTS

Because the formula currently specified in the regulations for calculation of the BBD percentage standard assumes that all BBD used to satisfy the BBD standard is biodiesel, it biases the resulting percentage standard low, given that in reality there is some renewable diesel in BBD. The bias is small, on the order of 2 percent, and has not impacted the supply of BBD since it is the higher advanced biofuel standard rather than the BBD standard that has driven the demand for BBD. Nevertheless, we believe that it is appropriate to modify the factor used in the formula to more accurately reflect the amount of renewable diesel in the BBD pool.

The average Equivalence Value of BBD appears to have grown over time without stabilizing. This trend has continued and is consistent with the growth in facilities producing renewable diesel as discussed in DRIA Chapter 5.2. Based on the data shown in Figure IX.D–1, we believe that the factor used in the formula for calculating the percentage standard for BBD should be at least 1.57. We are therefore proposing to replace the factor of 1.5 in the percentage standard formula for BBD with a factor of 1.57.[329] For the final rule, we will consider additional data that may be available and may adjust this factor as appropriate. Note that we are not proposing to change any other aspect of the percentage standard formula for BBD.

E. Flexibility for RIN Generation

We are proposing minor edits for 40 CFR 80.1426 to simplify and clarify the requirement that renewable fuel producers and importers may only generate RINs if they meet all applicable requirements under the RFS program for the generation of RINs. The regulations EPA promulgated in the 2010 RFS2 final rule at 40 CFR 80.1426(a)(1), (a)(2), and (b) state, in part, that renewable fuel producers ''must'' generate RINs if they meet certain requirements, and 40 CFR 80.1426(c), in turn, prohibits the generation of RINs if a renewable fuel producer cannot demonstrate that they meet the requirements in 40 CFR 80.1426(a)(1), (a)(2), and (b). That rule retained the word ''must'' from the RFS1 regulations but made it clear that parties cannot generate RINs for biofuel if the feedstock used to produce that biofuel does not satisfy the renewable biomass requirements and if the renewable fuel producer has not met all other applicable requirements, including registration, reporting, and recordkeeping requirements.[330] Our longstanding interpretation of these regulatory requirements is that renewable fuel producers that do not want to generate RINs can choose to not register, keep records, or report to the EPA. In light of this approach, we have determined that a more straightforward approach would be to allow, rather than require, RINs to be generated for qualifying renewable fuel. Thus, we are proposing that 40 CFR 80.1426(a)(1), (a)(2) and (b) state that RINs ''may only'' be generated if certain requirements are met. We are also proposing to remove

[328] Under 40 CFR 80.1415(b)(4), renewable diesel with a lower heating value of at least 123,500 Btu/gallon is assigned an Equivalence Value of 1.7. A minority of renewable diesel has a lower heating value below 123,500 BTU/gallon and is therefore assigned an Equivalence Value of 1.5 or 1.6 based on applications submitted under 40 CFR 80.1415(c)(2).

[329] While we are proposing to revise the factor of 1.5 in the percentage standard formula for BBD, we would include all four of the percentage standard formulas in our amendatory text for 40 CFR 80.1405(c). This is due to the manner in which the original formulas were published in the CFR, which does not allow for revisions to a single formula without republishing all of the formulas. We are not modifying any aspect of these formulas beyond the change to the factor of 1.5 in the BBD formula.

[330] 40 CFR 80.1426(a)(1)(iii).

the provisions for small volume renewable fuel producers at 40 CFR 80.1426(c)(2) and (c)(3) as well as 40 CFR 80.1455 because those provisions are no longer necessary. If any renewable fuel producer, regardless of size, has the flexibility to choose to generate RINs, then there is no longer a need to provide flexibility for small producers because they would only choose to generate RINs if it were economically beneficial to do so. We seek comment on our proposal to modify the RIN generation provisions to allow rather than require RIN generation.

F. Changes to Tables in 40 CFR 80.1426

We are proposing changes to Tables 1 through 4 to 40 CFR 80.1426 in order to conform with current guidelines from the Office of Federal Register (OFR).[331] As they currently exist in the CFR, these tables are designated to 40 CFR 80.1426 and we refer to them as ''Table 1 to 40 CFR 80.1426,'' ''Table 2 to 40 CFR 80.1426,'' etc. Under OFR's guidelines, this way of referring to the tables means that they should be located at the very end of 40 CFR 80.1426. Currently, however, Tables 1 and 2 are located after 40 CFR 80.1426(f)(1)(vi), Table 3 is located in 40 CFR 80.1426(f)(3)(v), and Table 4 is located in 40 CFR 80.1426(f)(3)(vi)(A).

In order to conform with OFR's guidelines, we are proposing to move Tables 1 and 2 to the end of 40 CFR 80.1426, consistent with their current designation. Since we are not proposing to change the designations or contents of these tables as part of this move, all of the existing references to these tables throughout 40 CFR part 80, subpart M, as well as all references in existing EPA actions and documents (including **Federal Register** notices, guidance documents, and adjudications) would remain accurate and valid. In contrast, for Tables 3 and 4, we are proposing to create new provisions within the regulations into which we would move and consolidate the formulas in these tables. Specifically, we would move and consolidate the five formulas currently in Table 3 into 40 CFR 80.1426(f)(3)(v), and would move and consolidate the five formulas currently in Table 4 into 40 CFR 80.1426(f)(3)(vi)(A). The formulas themselves would effectively remain unchanged and since there are no other references to these tables outside of the paragraphs in which they were located, no additional revisions are necessary to implement this proposed change.

We seek comment on our proposal to move Tables 1 and 2 to the end of 40 CFR 80.1426 and to retain their current designations (''Table 1 to 40 CFR 80.1426'' and ''Table 2 to 40 CFR 80.1426''), to move and consolidate the formulas currently within Tables 3 and 4 into paragraphs 40 CFR 80.1426(f)(3)(v) and (vi)(A), respectively, and on whether any additional clarification or revisions are necessary to implement these moves. We reiterate that we are not proposing to revise or otherwise reopen the contents of Table 1 or Table 2 as part of this move, or to revise or otherwise reopen the formulas that are currently in Table 3 and Table 4, other than to move and consolidate them.

G. Prohibition on RIN Generation for Fuels Not Used in the Covered Location

We are proposing amendments to 40 CFR 80.1426(c) and 40 CFR 80.1431 to reiterate that parties (*e.g.,* foreign RIN-generating renewable fuel producers and importers) cannot generate RINs for renewable fuel unless it was produced for use in the covered location. The CAA and our implementing regulations already limit RIN generation to renewable fuel produced for use in the United States, and these amendments are intended to address any perceived confusion on the part of stakeholders. The amendments specify that RINs cannot be generated on renewable fuel that is not produced for use in in the covered location and make such RINs invalid. We note that it is a prohibited activity under 40 CFR 80.1460(b)(2) to generate or transfer invalid RINs, and our proposal reinforces that generating RINs for fuel not produced for use in the covered location is a prohibited activity. We seek comment on our proposed amendments to reiterate that parties cannot generate RINs for renewable fuel unless it was produced for use in the covered location.

H. Seeking Public Comment on Hydrogen Fuel Lifecycle Analysis

1. Background and Purpose

EPA has received multiple petitions pursuant to 40 CFR 80.1416 requesting cellulosic biofuel (D-code 3) RIN eligibility for new fuel pathways that use renewable natural gas (RNG) produced from biogas from anaerobic digesters or landfills as a feedstock to produce hydrogen fuel for use in fuel cell electric vehicles (FCEVs). The pathway petitions received to date have focused on the use of steam methane reforming (SMR), a process that reacts natural gas or RNG with high-pressure steam to produce hydrogen fuel.[332] Approximately 95 percent of hydrogen produced in the United States today is produced using SMR. The large majority of SMR facilities use natural gas feedstock, though there are variations of this process and differences in efficiencies across facilities. Although most hydrogen fuel is currently used in industrial processes such as petroleum refining and fertilizer production, there is interest in using hydrogen as a transportation fuel in light-duty, medium- and heavy-duty, and non-road vehicles.

In this section we are presenting estimates of lifecycle GHG emissions associated with the feedstock sourcing, production, transport, and use of hydrogen fuel produced from RNG through an SMR process for use as a transportation fuel. Clean Air Act section 211(o)(1)(B) defines advanced biofuel, of which cellulosic biofuel[333] is a subset, as ''renewable fuel, other than ethanol derived from corn starch, that has lifecycle greenhouse gas emissions, as determined by the Administrator, after notice and opportunity for comment, that are at least 50 percent less than the baseline lifecycle greenhouse gas emissions.'' Thus, for a fuel to qualify as a cellulosic or advanced biofuel and be eligible to generate D-code 3 or D-code 5 RINs respectively, the public must have notice of and an opportunity to comment on EPA's lifecycle GHG assessment of that fuel. We are therefore requesting public comment on use of the lifecycle GHG estimates in this section and related topics in support of evaluating and resolving the pathway petitions for hydrogen fuel before the agency.

The estimates summarized below are from Argonne National Laboratory's Greenhouse gases, Regulated Emissions, and Energy use in Technologies (GREET)[334] model for hydrogen fuel produced from RNG through an average SMR process. We present GREET results here since it is a publicly available data source developed by a U.S. Department

[331] Office of the Federal Register, National Archives and Records Administration, ''Document Drafting Handbook,'' August 2018 Edition (Revision 1.4), January 7, 2022.

[332] Hydrogen Production: Natural Gas Reforming. Department of Energy, *https://www.energy.gov/eere/fuelcells/hydrogen-production-natural-gas-reforming.*

[333] Cellulosic biofuel is defined in Clean Air Act section 211(o)(1)(E) as ''renewable fuel derived from any cellulose, hemicellulose, or lignin that is derived from renewable biomass and that has lifecycle greenhouse gas emissions, as determined by the Administrator, that are at least 60 percent less than the baseline lifecycle greenhouse gas emissions.''

[334] Argonne Greenhouse gases, Regulated Emissions, and Energy use in Technologies (GREET) Model, *https://greet.es.anl.gov.*

of Energy laboratory that are similar to the pathway petitions EPA has received. EPA has often used GREET as one of the data sources for our lifecycle analysis assumptions in the past. The predeveloped pathways in GREET were similar in scope to the petitions that were submitted to EPA under claims of confidential business information, therefore presenting the GREET data allows for public comment without disclosing data that was claimed as confidential business information.

Based on the data and information we have received from petitioners to date, the lifecycle GHG emissions associated with hydrogen produced from RNG via SMR vary significantly based on the configuration of individual hydrogen production facilities and how hydrogen from individual facilities gets distributed to end users. While SMR production of hydrogen is well established, hydrogen use as a transportation fuel introduces new areas of significant variation and uncertainty that would be more difficult to address in a generalized lifecycle GHG analysis of hydrogen fuel (*e.g.,* whether hydrogen fuel is produced on-site or at larger centralized SMR facilities, or whether hydrogen fuel is compressed or liquified). Given these variations in a relatively nascent transportation fuel market and the lack of real-world data, we believe it is prudent as a first step towards approving hydrogen fuel pathways to take into account the GHG emissions associated with a specific facility's production and distribution of hydrogen fuel at this time. EPA's evaluation of individual petitions will be based on the petitioner's energy and mass balance data and, as we are requesting comment on here, the GHG emissions associated with the petitioners' fuel production processes and combined with data from GREET on emissions upstream from biogas sourcing as well as downstream associated with the distribution and use of the finished biofuel. Our intent is to use this combination of GREET data and pathway petition data to determine whether the fuel produced at an individual facility satisfies the CAA renewable fuel GHG reduction requirements. Due to the large number of possible configurations for producing transportation fuel from hydrogen, and varying energy requirements for producing gaseous and liquid hydrogen, we do not intend to promulgate a generally applicable pathway for hydrogen fuel to Table 1 to 40 CFR 80.1426 at this time.[335]

In this section, we also discuss and seek comment on key and novel aspects of using hydrogen fuel under the RFS program, including compression and pre-cooling of the hydrogen fuel, hydrogen fuel cell electric vehicle efficiency, and the global warming potential of fugitive hydrogen. We request comment on these topics, as they all have a potential impact on the lifecycle GHG emissions.

There are additional considerations beyond the lifecycle GHG emissions that may need to be resolved before RINs can be generated for hydrogen. These include registration, recordkeeping, and reporting requirements, product transfer documents, the party that would generate the RINs, the equivalence value that determines the number of RINs generated for a given quantity of hydrogen, and the definition of ''produced from renewable biomass'' that is discussed in Section IX.M. Following the notice and opportunity for public comment provided here, we believe we would be in a position to act on facility-specific hydrogen fuel pathway petitions submitted pursuant to 40 CFR 80.1416, in situations where no additional regulatory changes are needed to accommodate the generation of RINs for hydrogen fuel.

2. Hydrogen Fuel Steam Methane Reforming (SMR) Lifecycle Analysis

Evaluation of the lifecycle GHG emissions associated with hydrogen fuel under the RFS program must consider ''the aggregate quantity of greenhouse gas emissions (including direct emissions and significant indirect emissions such as significant emissions from land use changes), as determined by the Administrator, related to the full fuel lifecycle, including all stages of fuel and feedstock production and distribution, from feedstock generation or extraction through the distribution and delivery and use of the finished fuel to the ultimate consumer,'' not merely the hydrogen fuel production step.[336]

In this analysis, we are considering hydrogen fuel produced in an SMR from RNG sourced from landfill biogas. The feedstock is biogas from landfills which we have previously evaluated as part of the RFS2 final rule lifecycle determination.[337] Therefore no new renewable feedstock production modeling is required. No direct or indirect land use change emissions were attributed to landfill biogas as a feedstock. Landfill biogas is a natural byproduct of the decomposition of organic material in landfills. It is composed of roughly 50 percent methane (the primary component of natural gas), 50 percent carbon dioxide (CO_2), and a small amount of non-methane organic compounds.[338] The landfill biogas is captured and upgraded to RNG to increase the concentration of methane and remove CO_2 along with other impurities. The upgraded pipeline specification RNG is then injected into a common carrier pipeline to transport the gas that is functionally identical to fossil natural gas towards facilities that can use the feedstock. In this case the pipeline transports the RNG to an SMR located offsite in order to produce hydrogen fuel.

While we describe a few variations of SMR processes below, consisting of different sizes, production capacities, and primary energy sources, these all share similarities in that they convert the RNG into hydrogen by subjecting it to high pressure and temperatures in the presence of a catalyst using energy supplied to the system to release and bond the embedded hydrogen molecules together found in the RNG and supplied water.[339] This two-step process includes the namesake steam-methane reforming reaction and a subsequent water-gas shift reaction that releases additional hydrogen from the water in the process. This process relies on RNG, fossil natural gas, or electricity to supply the energy for the steam methane reforming-with the most common energy source being fossil natural gas for larger and more centralized facilities. Natural gas or RNG can be used in SMRs for both the feedstock and also as the process energy to drive the reactions. While some of the hydrogen molecules are stripped from water in the process, there is no energy in the finished fuel that originates from the water molecules. The energy in the finished hydrogen fuel comes from both the feedstock and process energy used as inputs to the SMR, which relates to the ''produced from renewable biomass'' topic as discussed in Section IX.M.

[335] We anticipate that some refineries would wish to use hydrogen produced from RNG via SMR as a feedstock for producing other renewable fuels. We intend for the lifecycle GHG analysis for hydrogen in Section 9.H.2 to inform the broader evaluation of such renewable fuels produced at refineries.

[336] Clean Air Act section 211(o)(1)(H).

[337] March 2010 RFS2 rule (75 FR 14670).

[338] EPA Landfill Methane Outreach Program (LMOP), Basic Information about Landfill Gas, *https://www.epa.gov/lmop/basic-information-about-landfill-gas.*

[339] Hydrogen Production: Natural Gas Reforming, Department of Energy, Hydrogen and Fuel Cell Technologies Office, *https://www.energy.gov/eere/fuelcells/hydrogen-production-natural-gas-reforming.*

Once hydrogen fuel is produced in the SMR, it must be specially stored and transported for its end use as a transportation fuel. Hydrogen fuel differs from conventional liquid fuels due to the significant amount of energy required for concentration, transportation, and storage of the fuel. While hydrogen fuel is typically produced in a gaseous form, it requires compression at high pressure to maintain a reasonable storage or transportation volume and requires significant energy to perform that compression. Liquefaction of the hydrogen fuel to below −423 degrees Fahrenheit is another option for further reducing the volume and allowing for easier transportation of greater amounts of hydrogen fuel over long distances using cryogenic tanker trucks compared to gaseous tube trailers, but this comes at an even greater energy cost than gaseous hydrogen fuel compression.[340] Once delivered to a refueling station, hydrogen fuel is commonly gasified and pre-cooled to enable faster refueling of vehicles. These steps require energy, usually from electrically driven compressors. Argonne's GREET evaluates both the centralized and distributed [341] hydrogen fuel production and distribution scenarios.

The GREET model contains various pathway analyses for hydrogen produced through an SMR process. We present the following lifecycle estimates based on results from GREET that represent average hydrogen production scenarios using landfill biogas as the feedstock based on data from industry average SMR facilities. The steps include feedstock production, feedstock transportation, hydrogen fuel production, transportation of the finished fuel, and dispensing to vehicles at a hydrogen refueling station. We present three different scenarios below from GREET that most closely represent the various pathway petitions using an SMR that the agency has received. Facility specific GHG estimates would vary slightly from these GREET pathways based on factors such as process efficiency, energy inputs, and transport distances, among others.

All scenarios assume the feedstock is RNG sourced from landfill biogas.[342] GREET assumes electricity is used to upgrade and process the landfill biogas and approximately two percent of the methane is assumed to become fugitive during this process. The resulting upgraded RNG is compressed and injected into a common carrier natural gas pipeline for transportation to the SMR facility to be converted to hydrogen fuel.

The first two scenarios presented below represent lifecycle GHG emissions for large centralized SMR facilities that are meant to produce hydrogen in one location and transport it to hydrogen refueling stations for end-users, similar in concept to how petroleum refineries produce gasoline and transport the resulting fuel to gas stations. The first scenario represents gasifying the hydrogen fuel and the second scenario represents liquefaction of the hydrogen fuel, which as described above incurs a greater energy and GHG emissions burden compared to gasification. In both scenarios, the SMR process is assumed to use fossil natural gas for converting the RNG feedstock into hydrogen fuel and export excess steam for other industrial processes. GREET assumes natural gas as the energy input into the process. Therefore, when considering the SMR system as a whole, 59.4 percent of the energy comes from RNG as the feedstock and 40.6 percent of the energy comes from the fossil natural gas used to drive the process. The system has an overall average energy efficiency ratio of 71.9 percent, meaning it takes approximately 1.4 million Btu (mmBtu) of total natural gas (RNG and fossil natural gas) to produce 1.0 mmBtu of hydrogen fuel.

For compression and pre-cooling of hydrogen in all scenarios, the energy source is assumed to be electricity from the average U.S. electrical grid. Table IX.H.2–1 provides examples of the amount of electricity that GREET assumes for various steps of the finished hydrogen fuel transportation, delivery, and vehicle fueling process. We recognize that these values can vary based on factors such as fuel volumes delivered, transportation distance, and residence time of the hydrogen fuel that requires cooling, among others. The hydrogen fuel is assumed to be used in hydrogen fuel cell electric vehicles and therefore has no associated tailpipe GHG emissions.

TABLE IX.H.2–1—ELECTRICITY REQUIRED FOR HYDROGEN FUEL COMPRESSION AND PRE-COOLING FROM GREET 2021

[kWh/kg H_2]

	Compressor to load gaseous tube-trailer for H_2 delivery	H_2 compressor at vehicle refueling station	Pre-cool H_2 for vehicle refueling
Centralized Gaseous Hydrogen Fuel Production:			
Light-Duty FCEVs (700 bar H_2) [343]	1.30	1.98	0.30
Medium- and Heavy-Duty FCEVs (350 bar H_2)	.....	1.25	.....
Distributed Hydrogen Fuel Production:			
Light-Duty FCEVs (700 bar H_2)	N/A	3.11	0.30
Medium- and Heavy-Duty FCEVs (350 bar H_2)	.....	2.27	.....

[340] Liquid Hydrogen Delivery. Department of Energy, *https://www.energy.gov/eere/fuelcells/liquid-hydrogen-delivery.*

[341] Centralized production refers to producing hydrogen fuel from larger facilities that can increase production efficiency but requires distribution through a network of gaseous or liquified hydrogen tube trailer or pipeline deliveries to hydrogen refueling stations. Distributed hydrogen fuel production refers to producing hydrogen fuel at the point of end-use such as at the refueling stations themselves. This is generally expected to have lower production efficiencies and requires the hydrogen fuel production inputs (*e.g.,* natural gas, electricity, water) to come to the distributed hydrogen fuel production site but eliminates the need to transport the finished hydrogen fuel to a separate location.

[342] While GREET's assumptions here use landfill biogas, EPA stated in the RFS Pathways II and Technical Amendments to the RFS 2 Standards final rule (79 FR 42128) that GHG lifecycle emissions for biogas generated at MSW landfills reasonably represent biogas from municipal wastewater treatment facility digesters, agricultural digesters, separated MSW digesters, and waste digesters as well. We would therefore use this proposed lifecycle assessment to represent any of those feedstocks as they have already been evaluated and approved in Table 1 to 40 CFR 80.1426. Biogas from waste digesters that does not meet the regulatory criteria as cellulosic feedstock used to generate hydrogen fuel would only be able to qualify for advanced (D5) or conventional biofuel (D6) RINs.

[343] Hydrogen fuel needs to be compressed to high pressures to reduce its volume for onboard storage tanks in vehicles. As light-duty vehicles are more space limited, they typically refill using gaseous hydrogen fuel compressed to 700 bar or approximately 10,000 psi. Heavy-duty vehicles can carry larger tanks and typically refill using hydrogen fuel compressed to 350 bar or approximately 5,000 psi. More energy is needed to achieve higher levels of compression.

In addition to the GREET default assumptions supported by industry data, we also present GREET results that make use of assumptions from NREL's Hydrogen Analysis (H2A) model in the table below. NREL assumes a similar 72.0 percent conversion efficiency for centralized steam methane reforming. H2A also assumes that a small percentage (approximately 1.2 percent) of the total energy to produce the hydrogen in centralized SMR comes from grid electricity, unlike the default GREET assumptions. We present both the default GREET results and those from GREET using NREL H2A assumptions in Table IX.H.2–2 below to show a range of values from the model.

TABLE IX.H.2–2—LIFECYCLE GHG EMISSIONS FOR PRODUCING GASEOUS AND LIQUID HYDROGEN FROM CENTRALIZED STEAM METHANE REFORMING (SMR) USING LANDFILL GAS AS FEEDSTOCK AND NATURAL GAS AS THE PREDOMINANT PROCESS ENERGY SOURCE

[$kgCO_2e$/mmBtu] [344]

	Gaseous hydrogen fuel		Liquid hydrogen fuel	
	GREET default assumptions	GREET using NREL H2A assumptions	GREET default assumptions	GREET using NREL H2A assumptions
Domestic & International Land Use Change	0.0	0.0	0.0	0.0
Feedstock Production & Transport	9.2	9.2	10.0	10.0
Fuel Production	11.4	25.8	39.0	53.6
Tailpipe	0.0	0.0	0.0	0.0
Lifecycle GHG Emissions	20.5	34.9	49.0	63.5

The third scenario shown below in Table IX.H.2–3 represents lifecycle GHG emissions for producing gaseous hydrogen fuel using a smaller-scale SMR for distribution directly at a refueling station (also referred to as distributed production or forecourt natural gas reforming). This configuration would be analogous to a gas station that produces its own gasoline onsite. This scenario still assumes the feedstock is renewable natural gas sourced from landfill biogas and it arrives at the distributed SMR via natural gas pipeline. The SMR process is assumed to use a mixture of grid-based electricity and fossil natural gas for converting the RNG feedstock into hydrogen fuel. GREET assumes the system has an overall average efficiency ratio of 74.2 percent while NREL's H2A model assumes the process is 71.4 percent efficient. The gaseous hydrogen is compressed and pre-cooled to allow for fast vehicle refueling, using electricity from average U.S. electrical grid as the energy source. As with the other scenarios, the hydrogen fuel is assumed to be used in hydrogen fuel cell electric vehicles and results in no tailpipe GHG emissions.

TABLE IX.H.2–3—LIFECYCLE GHG EMISSIONS FOR PRODUCING GASEOUS HYDROGEN FROM DISTRIBUTED STEAM METHANE REFORMING (SMR) USING LANDFILL GAS AS FEEDSTOCK AND NATURAL GAS AND GRID ELECTRICITY AS THE PROCESS ENERGY SOURCES

[$kgCO_2e$/mmBtu] [345]

	Gaseous hydrogen fuel	
	GREET default assumptions	GREET using NREL H2A assumptions
Domestic & International Land Use Change	0.0	0.0
Feedstock Production & Transport	12.2	12.2
Fuel Production	18.5	20.1
Tailpipe	0.0	0.0
Lifecycle GHG Emissions	30.7	32.3

We request comment on the lifecycle GHG estimates presented for hydrogen fuel produced from an SMR process based on information from the GREET model. We also invite comment on our intent to combine GREET data with information from pathway petitions submitted pursuant to 40 CFR 80.1416, with adjustments to account for aspects of each facility and how they plan to distribute hydrogen to end users. This would allow us to determine whether proposed pathways satisfy CAA lifecycle GHG emission reduction requirements for RFS-qualifying renewable fuels on a facility-specific basis. Based on the data presented here, hydrogen fuel produced from RNG in an SMR may qualify for either advanced (D-code 5) RINs or cellulosic (D-code 3) RINs when compared against the

[344] Results are presented from Argonne Greenhouse gases, Regulated Emissions, and Energy use in Technologies (GREET) Model where the model is set to use landfill gas as the source of natural gas for methane feedstock in the SMR process. GREET's default assumptions represent process energy to be 100 percent natural gas. To review the complete spreadsheet assumptions, see ''GREET1_2021rev1—Hydrogen Central SMR Scenarios.xlsm'' and ''GREET1_2021rev1—Hydrogen Central SMR Scenarios—H2A Assumptions.xlsm'' in the docket.

[345] Results are presented from Argonne Greenhouse gases, Regulated Emissions, and Energy use in Technologies (GREET) Model where the model is set to use landfill gas as the source of natural gas for methane feedstock in the SMR process. To review the complete spreadsheet assumptions, see ''GREET1_2021rev1—Hydrogen Distributed SMR Scenarios.xlsm'' and ''GREET1_2021rev1—Hydrogen Distributed SMR Scenarios—H2A Assumptions.xlsm'' in the docket.

petroleum baseline fuel.[346] However, EPA is not determining whether hydrogen fuel produced from RNG in an SMR meets any particular GHG reduction threshold at this time and we intend to evaluate petitions for hydrogen fuel and determine RIN eligibility on a case-by-case basis, in the context of specific proposed pathways.

3. Hydrogen Fuel Cell Electric Vehicle Efficiency

Similar to battery electric vehicles (BEVs), fuel cell electric vehicles (FCEVs) rely on electric motors in their drivetrains, which more efficiently convert fuel into useful work than internal combustion engines. FCEVs can drive approximately 1.5–2.5 times as far using gaseous hydrogen compared to conventional gasoline- or diesel-powered vehicles using an energy-equivalent amount of fuel. While the LCA estimates above from GREET are based on the energy content of hydrogen fuel and do not consider vehicle efficiency, it may be appropriate to calculate lifecycle GHG emissions for hydrogen fuel used in FCEVs by accounting for this increased vehicle fuel efficiency for hydrogen compared to conventional fuels such as diesel or gasoline. This would require the identification of an appropriate value or values to account for this significant difference in relative vehicle powertrain fuel efficiency in our lifecycle GHG calculations.[347]

One consideration in assessing hydrogen FCEV efficiency data is that values for this relatively nascent technology vary significantly across government sources and the peer-reviewed literature. Another consideration is that the varied vehicle duty cycles can yield significantly different vehicle fuel efficiencies relative to conventional gasoline and diesel vehicles (*e.g.,* passenger vehicles compared to long-haul truck freight delivery). Though not meant to be comprehensive, we present various examples of this kind of data below in Table IX.H.3–1. As the data comes presented in various formats, we have conformed the sources below to the same metric for better comparison using the Energy Economy Ratios (EERs) developed by the California Air Resources Board for the California Low Carbon Fuel Standard, which provide a relative ratio for efficiency between two vehicle powertrain/fuel technology combinations. A higher EER value represents a greater relative efficiency of hydrogen FCEVs compared to either gasoline or diesel equivalent technologies.

TABLE IX.H.3–1—EXAMPLE FUEL CELL ELECTRIC VEHICLE EFFICIENCY FACTORS

Source	Relative vehicle fuel efficiency factors comparing FCEVs to conventional vehicles	Details
California Air Resources Board (Low Carbon Fuel Standards)[348].	1.9	Heavy-Duty/Off-Road Applications (Fuels used as diesel replacement) Energy Economy Ratio (EER) Values Relative to Diesel.
	2.5	Light/Medium-Duty Applications (Fuels used as gasoline replacement) Energy Economy Ratio (EER) Values Relative to Gasoline.
Argonne National Laboratory (GREET 2021 Well-to-Wheels Calculator)[349].	1.95	Vehicle fuel efficiency comparison between a modeled diesel passenger vehicle (3,553 btu/mile) divided by modeled hydrogen gas passenger vehicle (1,825 btu/mile).
	2.35	Vehicle fuel efficiency comparison between a modeled gasoline passenger vehicle (4,289 btu/mile) divided by modeled hydrogen gas passenger vehicle (1,825 btu/mile).
National Renewable Energy Laboratory Report: Spatial and Temporal Analysis of the Total Cost of Ownership for Class 8 Tractors and Class 4 Parcel Delivery Trucks (FastSIM)[350].	1.28	Comparison of current class 8 long haul (750 miles) modeled FCEV truck fuel efficiency (11 miles/diesel-gallon equivalent) divided by comparable diesel truck efficiency (8.6 mi/dge).
	1.54	Comparison of current class 4 parcel delivery modeled FCEV truck fuel efficiency (15.6 miles/diesel-gallon equivalent) divided by comparable diesel truck efficiency (10.1 mi/dge).

We can account for the relative efficiency of hydrogen FCEVs and the use of hydrogen fuel by combining the LCA estimates we present from GREET above in Section IX.H.2 that represent GHGs based on the energy content of the fuel, with the relative vehicle efficiency factors in Table IX.H.3–1. By dividing the lifecycle GHG emissions of the fuel by the relative vehicle fuel efficiency, we obtain new lifecycle GHG values, adjusted to represent the relative efficiency of the vehicle compared to either a gasoline or diesel vehicle using the same amount of fuel energy.

For a conservative estimate to illustrate this approach, we can use the lowest vehicle efficiency factor in Table

[346] While it may be reasonable to compare hydrogen fuel against either petroleum gasoline or diesel, as we expect most hydrogen fuel will be used in medium- and heavy-duty fuel cell electric vehicles, we have opted to compare hydrogen fuel against a diesel fuel baseline as the predominant fuel used currently for those vehicles.

[347] We similarly accounted for the relative increase in per mmBtu efficiency use of fuel for battery electric vehicle drivetrains as part of the RFS Pathways II and Technical Amendments to the RFS 2 Standards proposed rule (78 FR 36042). For that lifecycle GHG analysis, accounting for EV efficiency was considered but ultimately not deemed necessary to include for a pathway of renewable electricity from landfill gas due to the GHG percent reduction threshold already exceeding the 60 percent cellulosic biofuel target before considering vehicle efficiency.

[348] California Code of Regulations, Title 17, § 95486.1—Generating and Calculating Credits and Deficits Using Fuel Pathways, Table 5. EER Values for Fuels Used in Light- and Medium-Duty, and Heavy-Duty Applications.

[349] Argonne National Lab (2022) GREET WTW Calculator and Sample Results from GREET 1 2021, *https://greet.es.anl.gov/tools.*

[350] Hunter, C. et al. Spatial and Temporal Analysis of the Total Cost of Ownership for Class 8 Tractors and Class 4 Parcel Delivery Trucks. (2021). NREL/TP–5400–71796, *https://www.osti.gov/servlets/purl/1821615* doi:10.2172/1821615. Values taken from Appendix H: EPA Regulatory Cycle Fuel Economy, Figure H1.

IX.H.3–1, a value that represent Class 8 long-haul trucks from a recent NREL study of 1.28, meaning that it would be expected that FCEV Class 8 long-haul trucks would be approximately 1.28 times more efficient with an equal amount of hydrogen fuel energy compared to a similar diesel engine truck running on an energy-equivalent amount of diesel fuel. Representing the highest efficiency value in Table IX.H.3–1, California Air Resources Board provides a value of 2.5 that represents light- and medium-duty FCEVs that replace similar gasoline-powered vehicles both using an energy-equivalent amount of fuel. Table IX.H.3–2 shows both the unadjusted and newly adjusted lifecycle GHG values assuming a low vehicle efficiency factor of 1.28 and a high vehicle efficiency factor of 2.5.

TABLE IX.H.3–2—LIFECYCLE GHG EMISSIONS FOR PRODUCING HYDROGEN USING SMR WITH LANDFILL GAS FEEDSTOCK, AND ADJUSTED GHG EMISSIONS ACCOUNTING FOR FCEV FUEL EFFICIENCY, ASSUMING LOW AND HIGH VEHICLE EFFICIENCY FACTORS

[$kgCO_2e$/mmBtu]

	Centralized SMR: gaseous hydrogen fuel	Centralized SMR: liquid hydrogen fuel	Distributed SMR: gaseous hydrogen fuel
Lifecycle GHG Emissions (GREET Default Assumptions)	20.5	30.7	49.0
Adjusted Lifecycle GHG Emissions (Assuming Low Vehicle Efficiency Factor: 1.28)	16.0	24.0	38.2
Adjusted Lifecycle GHG Emissions (Assuming High Vehicle Efficiency Factor: 2.5)	8.2	12.3	19.6

We seek public comment on whether it is appropriate to account for the relative vehicle/powertrain efficiency of hydrogen FCEVs compared to conventional gasoline and diesel vehicles for the purpose of lifecycle GHG analysis of hydrogen as a RIN-generating fuel under the RFS program. Furthermore, we seek additional data associated with the relative efficiency of FCEVs compared to conventional vehicles and whether it would be appropriate to make a single average assumption across all vehicle types or if we should define and differentiate different vehicle groupings.

4. Global Warming Potential of Hydrogen

A Global Warming Potential (GWP) is a quantified measure of the globally averaged relative radiative forcing impacts of a particular GHG relative to carbon dioxide. Although hydrogen is not considered a direct greenhouse gas and the IPCC and UNFCCC have not identified and established a GWP associated with hydrogen,[351] we are aware of literature suggesting there are indirect radiative effects caused by the presence of emitted hydrogen in the troposphere.[352] While the LCA values above from GREET do not include a GWP for hydrogen, limited literature suggests that hydrogen released to the troposphere may affect ozone concentrations and prolong the lifetime of resident methane.[353] Due to its extremely small molecular size, it is expected there would be leakage of gaseous hydrogen during production, transportation, storage, and dispensing into vehicles. We seek data on the leakage and venting rates of hydrogen throughout its production, storage, distribution, and use. We also seek comment on additional data and sources of information related to the global warming potential of hydrogen to consider in evaluating the lifecycle GHG emissions of hydrogen as a transportation fuel under the RFS program.

Hydrogen is an evolving source of transportation fuel, and we seek to use the best available data and modeling information as we evaluate the RFS pathway petitions we have before us. We invite comment on the issues discussed above in the context of evaluating the lifecycle GHG emissions of hydrogen fuel from renewable biogas as a feedstock in support of resolving the pathway petitions before the agency. EPA is not addressing the question of whether hydrogen fuel produced from RNG in an SMR meets any GHG reduction threshold at this time and intends to evaluate petitions for hydrogen fuel as well as determine RIN eligibility on a case-by-case basis, in the context of facility-specific pathway petitions.

I. Biogas Regulatory Reform

1. Background

In Section VIII.A, we explain in detail the current regulatory provisions for biogas to renewable CNG/LNG. We also describe in Section VIII.D our reasons for concluding that the current regulatory provisions for biogas to renewable CNG/LNG are not an appropriate model for the design of the proposed eRINs program. We explain that challenges associated with implementing the existing program for biogas to renewable CNG/LNG largely arise from flexibility in the current regulations that allow for any party in the biogas production, distribution, and use chain (and even those outside of it) to generate RINs. This situation is particularly complex in the case where biogas is upgraded to RNG and then injected into the commercial pipeline system because there are potentially dozens of parties that would need to enter into contractual relationships for the movement, storage, and use of the RNG; and the RIN generator must demonstrate both at registration and prior to generating a RIN that each party in the chain produced, distributed, and/or used the RNG in a manner consistent with its use as transportation fuel.

Since promulgation of the existing regulatory provisions for biogas to renewable CNG/LNG in the RFS Pathways II rule,[354] many parties have asked EPA to accept registrations under the existing pathways for the generation of RINs for renewable electricity produced from biogas, and to approve pathways to allow the use of biogas as a biointermediate to produce various types of fuels (*e.g.,* steam methane

[351] Framework Convention on Climate Change; January 31, 2014; Report of the Conference of the Parties at its nineteenth session; held in Warsaw from 11 to 23 November 2013; Addendum; Part two: Action taken by the Conference of the Parties at its nineteenth session; Decision 24/CP.19; Revision of the UNFCCC reporting guidelines on annual inventories for Parties included in Annex I to the Convention; p. 2. (UNFCCC 2014). Available at: *http://unfccc.int/resource/docs/2013/cop19/eng/10a03.pdf.*

[352] Derwent, R., et al. (2006). Global environmental impacts of the hydrogen economy. International Journal of Nuclear Hydrogen Production and Applications, 1(1), 57. *https://doi.org/10.1504/IJNHPA.2006.009869.*

[353] Forster, Piers, et al. (2018). Changes in Atmospheric Constituents and in Radiative Forcing. IPCC. p. 106. *https://www.ipcc.ch/site/assets/uploads/2018/02/ar4-wg1-chapter2-1.pdf.*

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

reforming the biogas into hydrogen or using a Fischer-Tropsch process to turn biogas into renewable diesel). These parties have suggested that EPA should encourage these biogas-derived renewable fuels to increase the use of advanced and cellulosic renewable fuels. While we recognize the opportunity to increase the availability of advanced and cellulosic biogas-derived renewable fuels in support of the statutory goals, we also note that allowing biogas or contracted RNG to be used as an input to produce a fuel other than renewable CNG/LNG entails adding yet further layers of complexity to a system that is already complex to implement and oversee. We therefore believe that the existing regulatory requirements for renewable CNG/LNG must first be modified to ensure that biogas is not double-counted in a situation where biogas may have multiple uses. We do not believe that the current regulatory program is well-suited to avoid the double counting of RNG where RNG could be used under the RFS program for more than one use.

As clarification, biogas is the product from anaerobic digesters and landfills before any purification has occurred. After purification, the biogas becomes RNG. Both biogas and RNG can be compressed or liquified to produce renewable CNG or renewable LNG, respectively. Under our proposal, the biogas producer is the party that produces the biogas and the RNG producer is the party that upgrades the biogas into RNG and injects the RNG into the natural gas commercial pipeline system.

The potential expanded use of RNG to renewable electricity, coupled with the potential use of RNG as a biointermediate to produce renewable fuels, could make the program impracticable to oversee within the current regulatory structure. Since biogas may have multiple uses, we believe it would be crucial to take steps to minimize the potential for generating invalid or fraudulent RINs, including the double counting of RINs, should we accept registrations for the use of renewable electricity and/or approve additional pathways to allow the use of biogas as a biointermediate. We believe such measures are necessary because EPA would potentially be tracking and overseeing increased volumes of biogas, and as highlighted in Section VIII.D.4, we want to ensure a program design that enables EPA to effectively track and oversee larger volumes of biogas (particularly in instances where biogas is converted into RNG and placed on a commercial pipeline system). We also want to avoid situations in which opaque contractual mechanisms could potentially allow multiple parties to claim that the same volume of biogas is used as two or more biogas-derived renewable fuels. We also have concerns that the existing program's complexity would not be well-suited to cover the potentially hundreds of additional biogas and RNG production facilities that would come online as a result of the proposed eRINs program and allowing biogas and RNG to be used as a biointermediate.

Therefore, in order to better facilitate the potential expanded use of biogas and RNG for renewable electricity and other biointermediates, and to reduce the burden associated with implementing the current biogas to renewable CNG/LNG program, we are proposing to modify the existing compliance and enforcement provisions for biogas to renewable CNG/LNG. The proposed changes would provide a more comprehensive, yet streamlined, tracking and oversight program for biogas and RNG. We recently finalized regulations for other biointermediates.[355] At that time, we deferred taking action to address the use of biogas or RNG as a biointermediate so that we could comprehensively address the unique aspects of biogas for a variety of potential uses, including to produce renewable electricity for the purpose of generating eRINs, in a future rulemaking. This proposal, if finalized, would allow biogas to be used as a biointermediate such that renewable fuel produced from biogas could be produced through sequential operations at more than one facility. The key elements of the biogas regulatory reforms we are now proposing include the following:

- Specification of the party that upgrades the biogas to RNG (the RNG producer) as the RIN generator;
- A requirement that the RNG producer assign RINs generated for the RNG to the specific volume of RNG when the volume is injected onto a commercial pipeline;
- A requirement that only the party that can demonstrate that the RNG was used as transportation fuel may separate the RIN;
- Specific regulatory requirements for key parties (*i.e.,* biogas producer, RNG producer, RNG RIN owners, and RNG RIN separators) in the RNG production, distribution, and use chain; and
- Specific provisions to address when biogas or RNG is used as renewable electricity or as a biointermediate.

We discuss each of these proposed key elements in more detail below.

Furthermore, we are also proposing to remove regulatory provisions that would no longer be necessary should we finalize the proposed biogas regulatory reforms. For example, should EPA finalize this proposal, much of the documentation currently required to be submitted to EPA at registration would no longer be necessary to submit, including much of the documentation currently required to demonstrate the contractual relationships between each party in the biogas production and distribution chain. We note, however, that under our proposal the registration of biogas production facilities (*e.g.,* landfills and agricultural digesters) would still be maintained because those requirements are necessary to ensure that the biogas was produced from renewable biomass under an EPA-approved pathway consistent with the Clean Air Act.

We are not proposing to revisit or reopen the pathways for biogas established in the RFS Pathways II rule. We are also not proposing any additional pathways for biogas in this action. We will continue to review pathway petitions under 40 CFR 80.1416 and may take separate regulatory action on additional pathways for biogas as appropriate in the future.

2. Biogas Under a Closed Distribution System

There are two approaches to generating RINs from biogas to renewable CNG/LNG under the existing regulations: (1) biogas in a closed, private, non-commercial distribution system that is compressed to renewable CNG/LNG, and (2) biogas upgraded to RNG, injected onto a commercial pipeline system, and then compressed to renewable CNG/LNG.[356] The focus of this proposed regulatory reform deals with RNG injected onto the natural gas commercial pipeline system. We are proposing only minor modifications to the existing regulatory provisions for biogas used to produce a renewable fuel when the biogas is produced, made into a renewable fuel, and used as transportation fuel in a closed distribution system. Because it is typically only a single party participating in a closed distribution system (*i.e.,* the same party that produces the biogas is the same party that converts the biogas to renewable CNG/LNG and then uses that biogas in their own CNG/LNG fleets), there is little opportunity for the double counting of biogas through multiple parties claiming the same volume across

[355] See 87 FR 39635–39651 (July 1, 2022).

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

an extended production, distribution, and use chain. As such, the focus of the proposed biogas regulatory reform provisions is centered on the movement of biogas that is upgraded to RNG and then injected onto the natural gas commercial pipeline system for later use as transportation fuel.

We are proposing that parties that generate RINs for biogas to renewable CNG/LNG via a closed distribution system would continue to operate under similar regulatory provisions to those currently in place. However, we note that to help ensure consistency in the regulatory requirements for all biogas-derived renewable fuels, we are proposing to move the provisions for biogas to renewable CNG/LNG via a closed distribution system into the newly proposed 40 CFR subpart E. It is not our intention to make significant changes to these regulatory requirements. However, we nevertheless seek comment on whether and how to streamline the regulatory requirements for biogas to renewable CNG/LNG via a closed distribution system.

We also note that under this proposal, to the extent that the biogas producer is a separate party from the party that generates RINs for biogas to renewable CNG/LNG in a closed distribution system, the biogas producer would have to separately register with EPA, as discussed in Section VIII.L.1. We are proposing this requirement to ensure that biogas producers are treated consistently throughout the program and to help us identify how parties are related in the biogas production, distribution, and use chain. We recognize that this may require some parties to update their registration information with EPA, but we do not expect this to require new third-party engineering reviews or the resubmission of registration materials.

3. RNG Producer as the RIN Generator

We are proposing that RNG producers would be the sole RIN generators, and that they would generate RINs for RNG they produce and inject into a commercial pipeline. Under the existing regulations, we allow for any party to generate RINs from biogas-derived renewable fuels, even parties that are not part of the biogas production or distribution chain. In the RFS Pathways II rule, we did not specify a RIN generator because we believed that the complexities of the production and distribution of biogas-derived renewable fuels warranted a case-by-case approach to RIN generation.[357] We noted that we would continue to monitor RIN generation practices and that we might reconsider specifying the RIN generator for biogas-derived renewable fuels at a later date. Based on our experience implementing the program since then, and in light of the potential expansion in the use of biogas as a biointermediate, we now believe that it is important to designate a RIN generator.

We believe that RNG producers are best positioned to generate the RINs for two reasons. First, one of the goals of the proposed biogas regulatory reforms is to minimize the potential for double counting of biogas or RNG since such biogas or RNG could potentially be used to produce multiple types of fuels. By designating RNG producers as the RIN generators, the RINs would effectively be tracked in EMTS from RNG injection through withdrawal for transportation use via the assignment and separation of RINs, as discussed in more detail in Section IX.I.4 below. This approach significantly reduces double counting concerns since a specific volume of RNG would have corresponding RINs assigned to it, and by specifying that the RINs could only be separated under specific circumstances.

Second, we believe RNG producers are also well positioned to determine whether the RNG was produced from qualifying biogas and to determine the correct amount of biomethane that would qualify for RIN generation. RNG producers typically add non-renewable components to biogas to make pipeline quality RNG. They are often the only party aware of the non-renewable components, and the only party in a position to measure the biomethane content of the RNG injected into the commercial pipeline system.

We also considered designating other parties as the RIN generator. For example, we considered designating the party that produces or uses the renewable CNG as the RIN generator. However, if we proposed such an approach, then we would largely forgo any tracking benefits provided by following transfers of the assigned RIN for a volume of RNG because the RNG would have already traversed the entirety of the natural gas commercial pipeline system before the RIN was generated and assigned. This approach would not remedy the issue that would arise under the existing program with regard to double counting and tracking; *i.e.,* the RNG would have to be tracked via a complicated series of contractual relationships instead of electronically and the downstream party and EPA acting in its oversight capacity would have to go to great lengths to ensure that the RNG was not multiple counted before the RIN was generated.

We recognize that this proposed change could affect a number of parties that are currently registered to generate RINs for biogas to renewable CNG/LNG; however, we think this step is necessary to implement the other proposed changes discussed below that would greatly simplify the program while improving our ability to effectively oversee it. Furthermore, by making the RNG producer the RIN generator, we can greatly improve our ability to track the movement of the RNG via RINs assigned at the point of injection as discussed in Section IX.I.4.

We seek comment on our proposal to designate the RNG producer as the RIN generator for RNG injected into a commercial pipeline system. We also seek comment on whether we should consider designating a different party as the RIN generator.

4. Assignment, Separation, Retirement, and Expiration of RNG RINs

Under this proposal, we are proposing to revise the regulations to specify how parties would assign, separate, and retire RINs generated for RNG. Under the current biogas to renewable CNG/LNG regulations, RINs are generated after any party in the CNG/LNG generation/disposition chain demonstrates that a specific amount of RNG was used as transportation fuel.

For RIN assignment, we are proposing that the RNG producer or RNG importer, *i.e.,* the RIN generator, must assign any and all RINs generated for a given volume of RNG to the same volume of RNG at the point of injection, and the RINs must follow transfer of title of that same volume of RNG as the volume moves through the natural gas commercial pipeline system.[358] The purpose of this proposed requirement is to ensure that the RIN, as tracked through EMTS, would follow the transfer of title of the RNG as the RNG moves through the natural gas commercial pipeline system.

Regarding RIN separation, we are proposing that only the party that demonstrates that the RNG was actually used as transportation fuel would be eligible to separate the RINs generated for the RNG from the RNG itself. For example, the party that compresses the RNG into renewable CNG or renewable LNG and demonstrates that the renewable CNG/LNG is used as

[357] 79 FR 42128, 42144 (July 18, 2014).

[358] For purposes of this preamble, when we refer to the RNG producer we are collectively referring to the party that produces and injects the RNG into the natural gas commercial pipeline system or imports the RNG into the covered location. Unless otherwise specified, all proposed requirements as part of this proposal apply to both RNG producers and RNG importers.

transportation fuel would be eligible to separate the RINs from the RNG. This is a different approach than currently taken under the existing regulations. At present, the party that generates the RINs from a volume of biogas immediately separates any RINs generated for that biogas after the party has demonstrated that the biogas was produced from renewable biomass under an EPA-approved pathway and used as transportation fuel. Separation does not necessarily occur at the end of the RNG's distribution chain, which necessitates tracking via contractual relationships, as discussed above, and forgoes any tracking capabilities of EMTS that could be leveraged by tracking assigned RINs for volumes of RNG as the RNG moves through the commercial pipeline system. Our proposed changes would allow for RINs assigned to a given volume of RNG to be tracked via EMTS as the RNG moves through the commercial pipeline system from injecting to withdrawal. Similarly, we are also proposing to clarify that the existing provisions that require obligated parties to separate assigned RINs when they take title to any assigned RINs would not apply to RINs assigned to RNG. Allowing obligated parties to separate assigned RINs for RNG would undermine the purpose of our proposal to use RINs assigned to RNG in EMTS to track transfers of RNG.

In the case of RNG to renewable CNG/LNG, we believe that having the party that has the documentation needed to demonstrate that the RNG was used as transportation fuel as renewable CNG or renewable LNG is the party best positioned to separate the RIN because they are also the party best positioned to demonstrate that the RNG is used as transportation fuel in the form of renewable CNG/LNG. This is analogous to the provisions that require parties blending denatured fuel ethanol (DFE) into gasoline to separate any assigned RINs for the denatured fuel ethanol at fuel terminals (*i.e.,* the point at which we believe it is reasonable to assume that the DFE will be used as transportation fuel).[359] Similarly, we believe that once a party has turned RNG into renewable CNG or renewable LNG, we can reasonably assume that the renewable CNG or renewable LNG would be used as transportation fuel.

To address the potential issue of double counting an RNG RIN where a party claims the RNG is used as renewable CNG/LNG and as renewable electricity, we are proposing that renewable electricity generators that use RNG to generate renewable electricity under the proposed eRINs program would have to retire the assigned RINs for the RNG they use to generate renewable electricity. As described in Section VIII.F.5.e, the renewable electricity generator would then transfer the RIN generation allotment for the renewable electricity generated from the RNG to the OEM for the subsequent generation of eRINs. Similarly, for RNG used as a biointermediate, we are proposing to require that the party that uses the RNG as a biointermediate retire the assigned RIN for the RNG used as a biointermediate, and then generate a separate RIN using the procedures for RIN generation for the new renewable fuel.

Under our proposal, RNG RINs would expire consistent with the current regulatory requirements at 40 CFR 80.1428(c). Under 40 CFR 80.1428(c), any RIN that is not used for compliance purposes for the year in which it was generated, or for the following year, is considered an expired RIN, and expired RINs are considered invalid RINs under 40 CFR 80.1431. What this means for RNG RINs is that if no party separates an RNG RIN before the annual compliance deadline for the compliance year following the year in which that RNG RIN was generated, the RNG RIN would expire after the subsequent year's compliance deadline has passed. For example, if a RIN is generated for RNG injected into the natural gas commercial pipeline in 2024, then that RNG RIN would expire after the 2025 annual compliance deadline. If no party separated the assigned RIN for the RNG because no party was able to demonstrate that the RNG was used as transportation fuel, to produce renewable electricity, or as a biointermediate, then the RNG RIN would expire and no longer be usable for compliance purposes. We note that this approach is consistent with existing regulations for how RIN expiration works under the RFS program generally; we are merely highlighting how the proposed biogas regulatory reform provisions would operate under the existing provisions. We also note that that this provision would allow for at least 15 months for any assigned RNG RIN to be separated (*i.e.,* a RIN generated and assigned in December of a compliance year would have at least 15 months before it expires after the subsequent compliance year's annual compliance deadline), and in many cases much longer. We believe this to be sufficient time for parties to demonstrate that the RNG with the assigned RINs was used as transportation fuel and would help encourage parties to use RNG as transportation fuel under the RFS before the RIN expires.

The benefits of this proposed approach to both EPA and the regulated community are manifold. First, this approach would significantly increase the ability for the title to RNG to be tracked and overseen because the transfer of title to RNG would follow the assigned RIN and would be reported in EMTS. EPA and third parties would be able to track the parties that transferred title to the RNG and follow the movement of the RNG via the assigned RIN in EMTS, as opposed to having to track a complex series of contractual relationships between each and every party in the RNG distribution system. EPA's proposed approach would greatly simplify the auditing process for both EPA and third parties allowing for increased program oversight.

Second, the proposed approach for RNG RINs would allow us to streamline the registration, reporting, and recordkeeping requirements for RNG and RNG RINs by utilizing EMTS for tracking. This would create a number of efficiencies. With regard to registration, it would eliminate the need for parties to submit contracts at registration. The requisite contractual chains can potentially involve dozens of parties and hundreds of CNG/LNG dispensers or CNG/LNG vehicle fleets. Each contract can be several hundred pages in length, and changing relationships between the parties involved often results in the need for RIN-generating parties to frequently update their registration information. The proposed approach would eliminate these inefficiencies. For reporting, since the RNG and RNG RINs would be tracked in EMTS, we would no longer need to require the reporting of affidavits and other documentation concerning the transfer of RNG that we currently require to ensure that the RIN generator has the information needed to demonstrate that a specific volume of RNG was used as transportation fuel. For recordkeeping, under the proposed approach, EMTS would electronically provide real-time data concerning how a given volume of RNG is transferred and ultimately used. This would eliminate the need for the existing provisions that require RIN generators to obtain documents from every party in the chain in the form of additional contracts, affidavits, or real-time electronic data. These proposed registration, reporting, and recordkeeping requirements would significantly streamline program implementation for EPA and reduce the compliance burden on regulated parties.

[359] 40 CFR 80.1429.

Third, our proposed approach minimizes the potential for a given volume of RNG to be counted more than once. To date, we have not had to address double counting because we have only accepted registrations for converting RNG to renewable CNG/LNG. However, if we finalize the proposed eRINs program and/or allow for the use of biogas as a biointermediate, then double counting would be a concern since RNG could have multiple uses within the RFS program, including converting RNG to renewable CNG/LNG, using RNG to generate renewable electricity under the proposed eRINs program, or using RNG as a biointermediate to produce a renewable fuel other than renewable CNG/LNG or renewable electricity.

We believe our proposed approach mitigates the risk of counting a given volume of RNG more than once because we are proposing to clearly specify the point in the process when RNG RINs may be generated (*i.e.,* at the point where RNG is injected into the commercial pipeline system) and the point in the process when RNG RINs may be separated (*i.e.,* when the RNG is demonstrated to be used as a transportation fuel). Because the RNG may only be injected into the pipeline once and because an assigned RNG RIN may only be separated once, this specificity significantly reduces a party's ability to double count the RNG at the point of injection or claim that a given quantity of RNG was used for more than one purposes.

5. Proposed Regulatory Provisions for Biogas Regulatory Reform

To assist in the implementation of the treatment of RNG RINs under this proposal, we are proposing to require that specific parties in the RNG disposition/generation chain participate in the RFS program and meet certain regulatory requirements. Under this biogas regulatory reform proposal, we are proposing specific regulatory requirements for the following parties:

- The party that produces the biogas (the biogas producer);
- The party that upgrades the biogas to RNG, injects the RNG into the natural gas commercial pipeline system, and generates/assigns the RIN to the RNG (the RNG producer);
- Any party that transfers title of the assigned RIN (RNG RIN owner); and
- The party that demonstrates that the RNG was used as transportation fuel in the form of renewable CNG/LNG, used to generate renewable electricity, or used as a biointermediate to produce a renewable fuel other than renewable CNG/LNG or electricity (the RNG RIN separator).

Like the eRINs proposal described in Section VIII.F, regulatory requirements for each of these key parties is necessary to ensure that the biogas is produced and converted to RNG consistent with CAA and regulatory requirements, and the RNG is used as transportation fuel consistent with Clean Air Act and regulatory requirements. Specifying the requirements applicable to each party would enable us to take a streamlined regulatory approach to the production, distribution, and use of RNG that allows for the flexible use of RNG without imposing strict limitations on which parties can take title to and use the RNG. Below, we discuss the specific regulatory requirements we are proposing for each party in the RNG disposition/generation chain.

a. Proposed Requirements for Biogas Producers

Under the biogas regulatory reform proposal, biogas producers would be required to comply with the same proposed regulatory requirements described in Section VIII.F and Section VIII.L because it is our intent to regulate all biogas producers in the same manner regardless of how their biogas may be used under the RFS program. In summary, biogas producers would need to register as described in Section VIII.L.1, submit reports as described in Section VIII.L.2, keep records as described in Section VIII.L.4, comply with PTD requirements for biogas as described in Section VIII.L.3, and undergo an annual attest engagement as described in Section VIII.O.2. The information we are proposing to collect from biogas producers is modelled off of what we currently collect from RIN generators as it relates to biogas production, with the key difference in our proposed approach versus the current regulatory approach being that, under our proposed approach, the biogas producers are responsible for complying with the requirements related to biogas production, as opposed to these requirements being placed on RIN generators.

b. Proposed Requirements for RNG Producers

We are proposing that RNG producers would register as described in Section VIII.L.1. Specifically, RNG producers would demonstrate at registration the RNG production capacity of their facility, how their facility is connected to the natural gas commercial pipeline system, and how they would meet the applicable sampling, testing, and measurement requirements to ensure that RNG meets applicable pipeline specifications as described in Section VIII.L.1. Like other RIN generators, RNG producers would be required to undergo an initial third-party engineer review as well as three-year registration updates which would include a new third-party engineer review.

We are also proposing that RNG producers would be required to submit quarterly reports on the amount of RNG they produced and injected into the natural gas commercial pipeline system. These reports would include information related to the volume and energy content of the injected RNG. We note that these proposed reports are intended to replace existing reporting requirements that RIN generators for biogas to renewable CNG/LNG must submit on a quarterly basis.[360] We are proposing to remove the existing regulatory requirements related to demonstrating that contracts or affidavits were obtained from parties in the RNG distribution chain, since this tracking would now be done via EMTS, as described in Section IX.I.4. We believe this would greatly simplify the quarterly reporting requirements related to RNG when compared to the existing biogas to renewable CNG/LNG regulatory provisions.

As part of this biogas regulatory reform proposal, we are proposing recordkeeping requirements related to RNG production, injection, and RIN generation. For RNG production, RNG producers would be required to maintain records indicating how much biogas was received at their facility from a registered biogas producer, records demonstrating how much biogas was converted to RNG, and records showing the amount of non-renewable content added to ensure that applicable pipeline specifications are met. For RNG injection, RNG producers would be required to maintain records showing the date of injection, and the volume and energy content of the RNG injected into the natural gas commercial pipeline system.[361] For RNG RIN generation, RNG producers would be required to maintain records related to the generation of RINs in accordance with 40 CFR 80.1454(b). These recordkeeping requirements are necessary to ensure that the RNG was produced and injected in a manner consistent with Clean Air Act requirements and applicable regulatory requirements, and that the appropriate number of RINs were

[360] RFS0601: Renewable Fuel Producer Supplemental report.

[361] For specific cases where RNG that is trucked to an interconnect, we are proposing the RNG producer measure when loading and unloading each truck.

generated for the RNG injected into the natural gas commercial pipeline system. Since we are proposing to track the movement of assigned RNG RINs in EMTS, we would no longer require that the RIN generator (*i.e.,* RNG producer under this proposed biogas regulatory reform) maintain records related to the contractual arrangements for the sale and transfer of RNG to parties that distribute the RNG to the end user. These records would no longer be needed since EMTS would memorialize the necessary information pertaining to the transfer of the assigned RINs.

We are proposing that transfers of title for RNG would be accompanied by PTDs, consistent with transfers of title of renewable fuels elsewhere under the RFS program. Like PTDs for renewable fuels, the proposed PTDs for RNG would include the name and address of the transferor and transferee, the transferor's and transferee's EPA company registration numbers, the amount of RNG being transferred, and the date of the transfer. Additionally, we are proposing that RNG producers would clearly designate on the PTDs that the RNG must be used as transportation fuel. We note that the RIN PTD requirements at 40 CFR 80.1453(a) would also apply to transfers of title for the RINs assigned to the RNG. We do not believe any changes to the RIN PTD provisions are necessary, but we seek comment on whether any additional RIN PTD language is needed concerning transfers of assigned RNG RINs.

We are proposing that RNG producers undergo an annual attest engagement like other RIN generators under 40 CFR 80.1464(b). We are also proposing additional procedures that are specific to the production and injection of RNG into the natural gas commercial pipeline system. These proposed attest engagement provisions would verify that records related to the appropriate measurement of RNG injection is consistent with the measurement requirements for RNG described in Section VIII.O.2, and would verify that pipeline injection statements match the amount of RNG reported by RNG producers in quarterly reports is consistent. Attest auditors would also confirm that the correct number of RINs were generated in EMTS compared to the underlying records. The purpose of these proposed attest engagement procedures for RNG producers is to help ensure that RNG RINs were validly generated consistent with EPA's regulatory requirements for RNG. We note that the annual attest engagement procedures for EPA's fuels program would apply to RNG producers like other parties required to undergo an annual attest engagement under EPA's fuels program (*e.g.,* obligated parties and renewable fuel producers). For example, RNG producers would have to identify in their registration information their independent attest auditor, and the independent attest auditor would electronically submit the annual attest engagement report directly to EPA using forms and procedures prescribed by EPA. We seek comment on the proposed annual attest engagement provisions for RNG producers.

c. Proposed Requirements for Parties That Own and Transact RNG RINs

We are proposing that parties that solely transact assigned RNG RINs (*i.e.,* parties that transact RNG RINs but that do not generate or separate the RNG RINs) would have to comply with all current regulatory requirements for owning and transacting RINs under the RFS program. The sole difference is that only a party that is a registered RNG RIN separator and has demonstrated that the RNG has been used as renewable CNG/LNG, used to generate renewable electricity, or used as a biointermediate to produce renewable fuel would be allowed to separate the RNG RIN. In other words, parties that simply transact assigned RNG RINs would not be allowed to separate RINs, and we would intend to design EMTS to prevent them from doing so. As described in more detail in Section IX.I.4, this provision is necessary to ensure that RNG is used as transportation fuel consistent with the Clean Air Act and applicable regulatory requirements.

With the exception of the limitation on RNG RIN separation, we note that we are not otherwise proposing to modify the requirements for parties that own and transact RNG RINs; we are simply highlighting how parties that solely own and transact RNG RINs would operate in the context of the proposed biogas regulations. As such, we will treat any comments on the current regulatory requirements for parties that own and transact RINs as beyond the scope of this action.

d. Proposed Requirements for RNG RIN Separators

Because parties that separate RNG RINs (''RNG RIN separators'') are key to ensuring that RNG is used as transportation fuel, we are proposing additional requirements for RNG RIN separators to ensure that RNG RINs are separated only when allowed. We would expect that the RNG RIN separators would be parties that operate compression equipment to turn RNG into renewable CNG/LNG, dispensers that dispense renewable CNG/LNG into CNG/LNG vehicles, or parties that operate CNG/LNG vehicle fleets; however, under our proposal, we would allow only the party that has the documentation to demonstrate that the RNG was used as transportation fuel in the form of renewable CNG/LNG.

We are proposing that RNG RIN separators would be required to register with EPA prior to RNG RIN separation, submit periodic reports to EPA on RNG RIN separation activities, maintain records, and undergo an annual attest audit. These requirements would apply to any party that separates RINs from RNG but would not include those parties that retire RNG RINs for renewable electricity generation (*i.e.,* renewable electricity generators) and for using biogas as a biointermediate. We also note that, because RNG RIN separators would also own the RINs they are separating and would be able to transact them, the RNG RIN separator would be subject to all other regulatory requirements that apply to owning RINs under the RFS program generally. This includes additional reporting, recordkeeping, PTD, and annual attest engagement requirements. We are not intending to repropose the current regulatory requirements for RIN owners under the RFS program; instead, we are merely highlighting that these requirements would apply to RNG RIN separators. Accordingly, we will treat any comments received on the regulatory requirements for RNG RIN separators as beyond the scope of this action.

The proposed registration requirements for RNG RIN separators would include provision of all the company information currently required from any party that registers under EPA's fuels program, which includes the RFS program.[362] Additionally, in the case of RNG to renewable CNG/LNG, we are proposing that RNG RIN separators would describe at registration their capabilities to compress RNG into renewable CNG/LNG (*i.e.,* convert RNG into renewable CNG/LNG) and their distribution and dispensing capabilities. The purpose of this requirement is to ensure that the RNG RIN separator can convert RNG into renewable CNG/LNG to be used as transportation fuel consistent with the Clean Air Act and applicable regulatory requirements. We note that we currently collect such information from the RIN generator under the current biogas to renewable CNG/LNG regulations; however, under this proposal, such information would instead come directly from the RNG RIN

[362] See 40 CFR 1090.800 and 1090.805.

separator—the party we believe is best positioned to demonstrate that the RNG was converted to renewable CNG/LNG and used as transportation fuel. For renewable electricity generators and parties that use biogas as a biointermediate, the registration requirements for renewable electricity generators described in Section VIII and the requirements for renewable fuel producers under 40 CFR 80.1450 would convey such information.

We are not proposing to require a third-party engineering review for RNG RIN separators. We believe that RNG compression technology and verifying CNG/LNG dispensers is straightforward and that a third-party engineering review would be unnecessarily burdensome. We note that if a party is required to undergo a third-party engineering review because of a different activity, *e.g.,* renewable electricity generation, that party would still need to undergo a third-party engineering review, if required. We seek comment on whether we should require that RNG RIN separators undergo a third-party engineering review as part of their registration requirements.

For periodic reporting, we are proposing that RNG RIN separators submit quarterly reports related to their RNG RIN separation activities. For RNG to renewable CNG/LNG, these reports would denote which facilities/dispensers converted RNG to renewable CNG/LNG and where the renewable CNG/LNG was dispensed, and the amount of RNG that was converted to renewable CNG/LNG and dispensed. This information is necessary to help demonstrate that the RNG was converted to renewable CNG/LNG and used as transportation fuel. These periodic reports would also serve as the basis for attest auditors and EPA to verify RNG RIN separation activities. We are also proposing to utilize these periodic reports to update the dispensing locations associated with the RNG RIN separator, and we are proposing to require that RNG RIN separators update their CNG/LNG dispensers quarterly. This would eliminate the need for such information to be included in RIN generators' registration information, as required by existing regulations. We seek comment on the proposed quarterly reporting requirements and whether any additional reports are needed to help ensure that RNG is converted to renewable CNG/LNG or used as transportation fuel.

Under this proposal, RNG RIN separators would also be required to submit additional information related to the separation transaction in EMTS. Under the current regulations, we have established a series of codes to identify the reason that a RIN is separated, consistent with the regulatory requirements that allow for RIN separation.[363] To implement the proposed requirements for eRINs and biogas regulatory reform, we would require that RNG RIN separators identify in EMTS the reason they were separating an assigned RIN from RNG via new separation codes; *i.e.,* whether the RIN was separated from the RNG for conversion to renewable CNG/LNG, for use to generate renewable electricity, or for use as a biointermediate. These proposed changes to EMTS would help track the use of RNG under the RFS program, which we believe will improve program oversight. We seek comment on whether any additional functionality in EMTS would be needed to ensure that RNG RINs are properly separated.

We are also proposing that RNG RIN separators would have to maintain records related to their RNG RIN separation activities. For RNG to renewable CNG/LNG, this would include information related to the location where the RNG was converted into renewable CNG/LNG, as well as the date, location, and amount of dispensed CNG/LNG. The recordkeeping requirements related to demonstrating that RNG was used as transportation fuel are currently maintained by the RIN generator and under this proposal would instead be maintained by the RNG RIN generator. We believe such records are necessary to ensure that RNG is used as transportation fuel, and we believe that it is most appropriate to require that the party best positioned to demonstrate that the RNG is used as transportation fuel maintain the records. We seek comment on whether there are any additional recordkeeping requirements necessary for RNG RIN separators.

We are proposing specific annual attest engagement procedures to verify RNG RIN separation, and we note that these proposed annual attest engagement procedures would be in addition to those currently required for RINs separated under 40 CFR 80.1464. Specifically, we are proposing that an independent attest auditor obtain the underlying records for reported information regarding an RNG RIN separator's operations and ensure that the RNG RIN separator has only separated RNG RINs in a manner consistent with their ability to demonstrate that RNG was used as transportation fuel. Similar to other annual attest engagement procedures under EPA's fuels program, issues identified by the independent attest auditor would be required to be flagged in the annual attest engagement report. These proposed annual attest engagement provisions are necessary to ensure that RNG RINs would only be separated when consistent with applicable regulations. We note that the annual attest engagement procedures for EPA's fuels program would also apply to RNG RIN separators.[364] For example, an RNG RIN separator would have to identify in their registration information their independent attest auditor, and the independent attest auditor would electronically submit the annual attest engagement report directly to EPA using forms and procedures prescribed by EPA.

6. RFS QAP Under Biogas Regulatory Reform

Similar to the proposed eRINs program, we are not proposing to require that biogas producers and RNG producers participate in the RFS QAP. As we noted in Sections VIII.N and IX.I.4, we believe our proposed biogas regulatory reforms would address the issues of double counting of RNG use (*e.g.,* a party claims an amount of RNG as renewable CNG/LNG and as renewable electricity), such that a requirement that biogas producers and RNG producers participate in the RFS QAP is not necessary. We note, however, that should we not finalize the proposed biogas regulatory reform provisions, we intend to require that all participants in both the eRINs and RNG disposition/generation chain participate in the RFS QAP program to help avoid the generation of fraudulent and invalid RINs, including ensuring that RNG is not double counted.

While we are not proposing to require RFS QAP participation, under this proposal, in order to generate a Q–RIN for RNG, both the biogas producer and the RNG producer would be required to be audited by the same independent third-party auditor. We believe that the existing RFS QAP regulatory requirements sufficiently cover the production of biogas and RNG because almost all RINs generated for biogas and RNG under the current program are verified by an independent third-party auditor; therefore, we are not proposing any changes to the RFS QAP provisions for biogas and RNG producers. However, we note that, under our proposal, the parties that transact the assigned RNG RIN and the RNG RIN separator would not need to be included as part of the RFS QAP. This approach

[363] See 40 CFR 80.1429.

[364] See 40 CFR 80.1464 and 1090.1800.

is consistent with the current regulatory treatment of RINs generated for ethanol and biodiesel, and we are not proposing to modify how the RFS QAP considers RIN separations in this action. We note that, as described in Section IX.I.5.d, we are requiring that RNG RIN separators undergo annual attest engagements, which we believe should provide sufficient third-party oversight.

7. RNG Used as Renewable Electricity or a Biointermediate

We are proposing provisions to address situations in which RNG is used to make renewable electricity or RNG is used as a biointermediate. Specifically, we are proposing that renewable electricity generators and renewable fuel producers would be required to retire the RINs assigned to a given volume of RNG prior to using that volume to either generate renewable electricity or produce renewable fuel. For renewable electricity, as described in Section VIII.F.5, the renewable electricity generator could then generate renewable electricity covered by a RIN generation agreement and transfer the data for the renewable electricity generated under the RIN generation agreement to the light-duty OEM, which could then generate eRINs for the amount of renewable electricity used by its fleet. In cases where RNG is used as a biointermediate to produce a different renewable fuel, the applicable RIN generation procedures would vary depending on what fuel is made from the RNG.

We believe our proposed approach would allow for multiple uses of RNG without imposing strict limits on the number of parties that produce or distribute RNG. By assigning RINs to the RNG injected into the commercial pipeline and using EMTS to track the transfer of the assigned RINs between parties that produced the RNG and use the RNG, we believe we can provide flexibility in the use of RNG while maintaining adequate oversight. We believe requiring retirement of the RNG RIN sufficiently mitigates concerns with possible double counting of the RNG, *i.e.,* a party could not generate an additional RIN or allotment for the RNG unless any assigned RINs were retired.

We seek comment on the proposed approach to require the retirement of assigned RINs when a party uses RNG to make renewable electricity or uses RNG as a biointermediate.

8. RNG Imports and Exports

For imported RNG, we are proposing to maintain the existing regulatory structure whereby either the importer of the RNG or the foreign RNG producer may generate the RINs. Under the RFS program, either the foreign renewable fuel producer may generate RINs (provided certain additional requirements are met) or the importer of the renewable fuel may generate RINs. Under the existing program, approximately 10 percent of all D3 RINs are generated from imported Canadian biogas and, to date, RINs for foreign biogas have only been generated by an importer. Under this proposal, we would maintain the flexibility that either the foreign renewable fuel producer (in this case, the foreign RNG producer) may generate the RIN or an importer may generate the RIN. The sole difference between the proposal and the existing regulations would be that instead of any foreign party in the biogas production and distribution chain, only a foreign RNG producer may be a RIN-generating foreign producer consistent with the approach outlined for domestic biogas production described above. In the case where a foreign RNG producer generates a RIN, the foreign RNG producer would be required to satisfy the additional regulatory requirements for RIN-generating foreign producers at 40 CFR 80.1466 (*i.e.,* submit to U.S. jurisdiction, comply with inspection requirements, and post a bond).

Based on existing registrations for foreign biogas, we do not believe that any changes to existing registrants would be necessary because RNG importers have already served as the RIN generator in all current registrations for Canadian RNG. We seek comment on our proposed approach to dealing with imported biogas used to make biogas-derived renewable fuel. We also note that we describe in more detail how foreign RNG and foreign renewable electricity would be treated under the proposed eRINs program in Section VIII.P.

For exported biogas, RNG, and renewable CNG and renewable LNG, we are not proposing to treat those exports any differently than other exported renewable fuels under the current regulations. We have become increasingly aware that, due to demands abroad for pipeline quality natural gas and RNG, some parties may wish to export RNG. Under this proposal, since a RIN would be generated for RNG at the point of injection into a commercial pipeline system, any party that exports the RNG outside of the covered location would incur an exporter RVO under 40 CFR 80.1430 and would be required to satisfy that RVO by retiring the appropriate number and type(s) of RINs. We seek comment on this proposed approach to handling exports of RNG and whether any additional regulatory provisions for RNG exports are necessary.

9. Implementation Date

We recognize that the proposed biogas regulatory reforms would necessitate a transition period for parties that are already generating RINs for biogas under the existing provisions. To allow for this transition, we are proposing an implementation date of January 1, 2024, for the biogas regulatory reforms. Beginning on January 1, 2024, all RNG introduced into the commercial pipeline system would be subject to the RIN generation, assignment, and separation provisions as discussed in Section XI.I.4. Until that time, RINs for the biogas to renewable CNG/LNG pathway must be generated using the existing regulatory provisions. Since most affected parties are currently registered with EPA (*e.g.,* the biogas production facilities and parties that transact RNG RINs), we believe this is a sufficient amount of time for parties to update their registrations to meet the new regulatory requirements. We seek comment on whether additional time is necessary for this transition.

We also recognize that there may be a significant volume of stored RNG that parties are intending to use as renewable CNG/LNG under the existing regulations, and that parties may not be able to use all of that volume prior to January 1, 2024. Therefore, we are proposing to allow parties to use all stored biogas in accordance with existing regulations to generate RINs prior to January 1, 2025. We believe this would provide enough time for parties with stored biogas to utilize their existing inventories and to begin complying with the new regulations. We seek comment on whether the January 1, 2025 deadline provides sufficient time for parties to use stored RNG produced under the existing regulations.

10. Biogas/RNG Storage Prior to Registration

We are proposing to address situations in which biogas or RNG is produced and stored prior to EPA's acceptance of a biogas or RNG producer's registration submission. Specifically, we are proposing that biogas or RNG may be stored on site (*i.e.,* at a storage facility co-located at the biogas or RNG production facility [365])

[365] ''Facility'' is defined at 40 CFR 80.1401 to mean ''all of the activities and equipment associated with the production of renewable fuel starting from the point of delivery of feedstock material to the point of final storage of the end product, which are located on one property, and are

Continued

prior to EPA's acceptance of a registration submission, provided that certain conditions are met, as discussed below. In order to ensure equal treatment of all parties, we are also proposing that these storage provisions would also apply to all other biointermediates and renewable fuels.

Under the RFS1 program, we issued guidance [366] stating that parties may assign RINs for renewable fuels that had left the renewable fuel production facility because the RFS1 regulations required that RINs be assigned to renewable fuels at the point of production and did not specifically define what ''point of production'' meant. This was acceptable for the RFS1 program because the program did not require that the renewable fuel be produced under an EPA-approved pathway (*i.e.,* the renewable fuel qualified by virtue of meeting the definition of renewable fuel under the RFS1 program).

Under the RFS2 program, in general, we have not allowed parties that produce renewable fuels to generate RINs for renewable fuel that has left the control of the renewable fuel producer prior to EPA-acceptance of the renewable fuel producer's registration (*i.e.,* the renewable fuel has left the renewable fuel production facility). The reason we have not allowed this is because EPA may determine that the fuel was not produced consistently with EPA's regulatory requirements and therefore, not be eligible for RIN generation. However, we have allowed parties to generate RINs for biogas and RNG that was produced prior to EPA acceptance of the RIN generator's registration provided several conditions were met. First, the biogas/RNG must have been produced after the third-party engineer conducted the site visit as described in 40 CFR 80.1450(b)(2). Second the biogas/RNG must have been produced consistent with the requirements of an EPA-approved pathway. Third, the RIN generator must not have changed the facility after the site visit by the third-party engineer. We have allowed biogas/RNG to be stored prior to registration in large part due to the length of time it has taken EPA to review and accept registrations for biogas to renewable CNG/LNG as a result of the existing registration requirements.

As explained in Section IX.I.4, under this proposal we would no longer require that biogas and RNG producers demonstrate that there are contracts between each party in the biogas/RNG production, distribution, and use chains in order to demonstrate transportation use. Therefore, we believe it is no longer necessary to allow for RINs to be generated for biogas/RNG produced and stored offsite of the biogas/RNG production facility prior to EPA acceptance of the biogas and RNG producer's registrations.

We would, however, continue to allow for the storage onsite of biogas/RNG, as well as all renewable fuels and biointermediates, produced prior to EPA acceptance of a registration submission if certain conditions are met. Specifically, we would allow for storage onsite if the following conditions are met:

- The stored biogas, RNG, biointermediate, or renewable fuel was produced after an independent third-party engineer has conducted an engineering review for the renewable fuel production or biointermediate production facility;
- The stored biogas, RNG, biointermediate, or renewable fuel was produced in accordance with all applicable regulatory requirements under the RFS program;
- The biogas producer, RNG producer, biointermediate producer, or renewable fuel producer made no change to the facility after the independent third-party engineer completed the engineering review;
- The stored biogas, RNG, biointermediate, or renewable fuel was stored at the facility that produced the biogas, RNG, biointermediate, or renewable fuel; and
- The biogas producer, RNG producer, biointermediate producer, or renewable fuel producer maintains custody and title to the stored biogas, RNG, biointermediate, or renewable fuel until EPA accepts the biogas or RNG producer's registration.

These conditions are necessary for storage prior to registration to ensure that RINs are not generated for fuels that fail to meet the applicable Clean Air Act and regulatory requirements for the production of renewable fuels. We believe that so long as the biogas or RNG producer has had a third-party engineer confirm that the facility could produce products consistent with the applicable RFS regulatory requirements; so long as the producer does not modify their facility, the biogas and RNG produced at these facilities should be able to be utilized to generate RINs. These products would have to be produced in accordance with the applicable regulatory requirements. We are proposing that the biogas or RNG producer must maintain custody of the product because once the product has left their custody, the potential ability of the producer to remedy issues with the product is greatly diminished; this could also result in other parties downstream becoming liable for the product not meeting applicable regulatory requirements. After EPA has accepted the biogas or RNG producer's registration, the stored products could then be used to produce renewable fuel or for the generation of RINs, as applicable.

For renewable electricity, we are proposing that renewable electricity placed on the commercial electric grid serving the contiguous U.S. prior to EPA's acceptance of a renewable electricity generator's registration does not meet these requirements and may not be stored for purposes of RIN generation because we are not aware of a case where the renewable electricity generator could store the renewable electricity on site. We seek comment on all aspects of allowing biogas, RNG, biointermediates, and renewable fuels to be stored prior to registration.

J. Separated Food Waste Recordkeeping Requirements

Under the Clean Air Act, qualifying renewable fuel must be produced from renewable biomass.[367] To ensure that RIN-generating renewable fuels satisfy this requirement, EPA's regulations contain, among other things, recordkeeping provisions that require renewable fuel producers to ''keep documents associated with feedstock purchases and transfers that identify where the feedstocks were produced and are sufficient to verify that feedstocks used are renewable biomass if RINs are generated.'' [368] In addition to the generally applicable requirements, EPA's regulations also contain provisions for specific types of feedstocks where necessary to ensure that their use is consistent with the statutory and regulatory definitions of renewable biomass.

One such set of feedstock-specific requirements exists for separated food waste used to produce renewable fuel. In 2010, EPA promulgated a requirement that renewable fuel producers using separated food waste submit, at the time of their registration with EPA to generate RINs, (1) the location of any facility from which the waste stream consisting solely of separated food waste is collected, and

under the control of the same person (or persons under common control).''

[366] Questions and Answers on the Renewable Fuel Standard Program. Page 7. *https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1001T9Z.pdf.*

[367] CAA section 211(o)(1)(J).

[368] 40 CFR 80.1454(d).

(2) a separated food waste plan.[369] However, an unintended effect of requiring renewable fuel producers to submit the locations of the facilities from which separated food waste was collected as part of their facility registration was that producers were required to update their information with EPA every time their feedstock suppliers changed. EPA recognized this could be burdensome for producers and, in 2016, proposed to revise the regulations to remove the provision to submit the location of every facility from which separated food waste is collected as a registration requirement and to simply rely on the corresponding recordkeeping requirement;[370] at that time, we noted that renewable fuel producers are also required to retain this information under the recordkeeping requirements under 40 CFR 80.1454.[371]

EPA finalized the proposed removal of the requirement to provide the location of every facility from which separated food waste is collected as part of the information required for registration in 2020.[372] We also reiterated that, pursuant to the existing recordkeeping provisions at 40 CFR 80.1454(d), renewable fuel producers were still required to ''keep documents associated with feedstock purchases and transfers that identify where the feedstocks were produced; these documents must be sufficient to verify that the feedstocks meet the definition of renewable biomass.'' [373] To emphasize that this requirement remains in the regulations in light of removing the corresponding registration requirement, we also promulgated a provision at 40 CFR 80.1454(j)(1)(ii) requiring renewable fuel producers to keep documents demonstrating the location of any establishment(s) from which the separated food waste stream is collected.

The Clean Fuels Alliance America challenged EPA's promulgation of the separated food waste recordkeeping provision at 40 CFR 80.1454(j)(1)(ii). Petitioners alleged the requirement that renewable fuel producers keep records demonstrating the location of any establishment from which separated food waste is collected is arbitrary and capricious and that renewable fuel producers ''had no opportunity to comment because EPA failed to mention this new recordkeeping requirement in the proposed rule.'' [374]

Although we emphasize that the requirement for renewable fuel producers to keep records associated with feedstock purchases and transfers that identify where the feedstocks were produced and are sufficient to verify that feedstocks used are renewable biomass has existed at 40 CFR 80.1454(d) since 2010, we are also aware there are parties that may have suggestions for how to better apply this requirement specifically to separated food waste feedstocks. We are therefore requesting comment on the separated food waste-specific recordkeeping requirement in 40 CFR 80.1454(j)(1)(ii).[375] In particular, we seek comment on how renewable fuel producers using separated food waste as feedstocks can best implement, in a manner consistent with standard business practices within the industry, the requirement to keep records demonstrating where their feedstocks were produced and that are sufficient to verify that the feedstocks meet the definition of renewable biomass.

EPA has also been engaged in conversations with third party feedstock suppliers, independent auditors, and renewable fuel producers on this topic. Based on these conversations, we are proposing a specific, optional approach to satisfying the applicable recordkeeping requirement on which we are requesting comment, in addition to the general request for comment on approaches above.

We understand there is a desire for independent auditors to play a role in satisfying the requirement that renewable fuel producers keep records demonstrating the location of any establishment from which separate food waste is collected. Specifically, stakeholders have requested that, rather than renewable fuel producers holding the records themselves, independent auditors be allowed to verify the records directly from the feedstock supplier. While the current regulations require the renewable fuel producer to keep the records on the feedstock source and amount as specified under 40 CFR 80.1454(j), as further explained below, we are proposing an option to allow independent auditors to verify records held by the feedstock supplier by leveraging the biointermediates provisions of the RFS program. While most of our conversations to date have addressed this issue in the context of used cooking oil collection, we believe this proposed option could also be useful for and apply adequately well to third-party collectors of separated yard waste, separated food waste, and separated municipal solid waste.

We are proposing an option under which, in lieu of renewable fuel producers needing to hold the records demonstrating the locations from which the feedstocks were collected, feedstock suppliers could voluntarily comply with the parts of the biointermediates provision relevant to demonstrating that the feedstock used to produce renewable fuel is renewable biomass. If a renewable fuel producer and feedstock supplier opt into this alternative requirement, then the following requirements would need to be met (as described in the proposed 40 CFR 80.1479): the feedstock supplier would need to register with the EPA and must keep all applicable records of feedstock collection; both the renewable fuel producer and feedstock supplier would need to participate in the QAP program using the same QAP provider; and product transfer documents would need to be supplied for feedstocks after leaving the feedstock supplier that include the volume, date, location at time of transfer, and transferor and transferee information. The feedstock suppliers and the renewable fuel producers that process those feedstocks would also be subject to the same liability provisions that apply to biointermediate producers and renewable fuel producers that process biointermediates.

Since the feedstock suppliers are not substantially altering the feedstock before transferring the feedstock, we believe fewer requirements would be necessary than for biointermediates to provide sufficient oversight of the feedstock and renewable fuel production process. Specifically, we are proposing that the feedstock supplier would not need to supply an engineering review, separated food waste plans, separated yard waste plans, or separated MSW plans as a part of registration. However, the renewable fuel producer will still need to supply these documents as part of their registration. Title transfer PTDs and transfer limits would also not be required. In addition, the feedstock would not be considered a biointermediate, so the feedstock supplier could sell feedstock to a biointermediate producer which could sell a biointermediate to a renewable fuel facility. In this situation, all three

[369] 40 CFR 80.1450(1)(vii)(B).

[370] 81 FR 80828, 80902–03 (November, 16, 2016).

[371] *Id.* (''The recordkeeping section of the regulations requires renewable fuel producers to keep documents associated with feedstock purchases and transfers that identify where the feedstocks were produced and are sufficient to verify that the feedstocks meet the definition of renewable biomass.'').

[372] 85 FR 7016, 7078 (Feb. 6, 2020).

[373] *Id.* at 7062.

[374] *RFS Power Coalition* v. *U.S. EPA,* No. 20–1046 (D.C. Cir.), Doc. #1882940 at 38–39, filed Jan. 29, 2021.

[375] We are not requesting comment on or reopening the requirement at 40 CFR 80.1454(d).

entities (feedstock supplier, biointermediate production facility and renewable fuel production facility) would need to use the same QAP provider.

We have designed this proposed option to be consistent with the California Air Resources Board's (CARB) approach for verification of similar feedstocks under their low carbon fuel standard (LCFS) program, given that many producers participate in both LCFS and RFS. Under CARB's LCFS program, multiple parties may serve as ''joint applicants'' to demonstrate that LCFS credits were validly created for fuels produced from ''specified source feedstocks'' like used cooking oil and animal fats.[376] Under CARB's LCFS program, applying as joint applicants allows each entity to maintain control of confidential data for the portions of the LCFS pathway they submit.[377] However, in order to ensure that LCFS credits are valid, CARB's LCFS program requires that ''(1) [e]ach joint applicant is subject to all requirements for pathway application, attestations, validation and verification, recordkeeping, pursuant to this subarticle, for the portion of the pathway they control[; and] (2) [a] single entity designated to submit data on behalf of multiple entities within a pathway does not relieve any other entity in the pathway from responsibility for ensuring that the data submitted on its behalf is accurate.'' [378] CARB's LCFS requirements then set up a structure similar to our proposal whereby the party must either maintain (1) ''delivery records that show shipments of feedstock type and quantity directly from the point of origin to the fuel production facility'' or (2) ''information from material balance or energy balance systems that control and record the assignment of input characteristics to output quantities at relevant points along the feedstock supply chain between the point of origin and the fuel production facility.'' [379] Under the second option, joint applicants under CARB's LCFS program must collectively maintain records of the type and quantity of feedstock obtained from each supplier, including feedstock transaction records, feedstock transfer documents, weighbridge tickets, bills of lading or other documentation for all incoming and outgoing feedstocks; maintain records used for material balance and energy balance calculations; and ensure CARB staff and verifier access to audit feedstock suppliers to demonstrate proper accounting of attributes and conformance with certified CI data.[380] CARB's LFCS regulations note that different entities may assume responsibility for different portions of the chain-of-custody, but that all entities must meet the chain of custody requirements collectively.[381] The chain-of-custody requirements, including the underlying records, are verified annually by an independent third party.[382]

As noted above, we have designed our proposed option to be consistent with the LCFS approach, taking into consideration the unique statutory and regulatory structure of the RFS program. Under our proposal, we would essentially allow renewable producers the same choice as LCFS credit generators: either the renewable fuel producer would have to maintain records from the point of origin (*e.g.,* restaurants) demonstrating that the feedstock is renewable biomass, or the feedstock suppliers would maintain the records for the feedstock from the point of origin and have the QAP auditors verify the chain-of-custody. We would not require that underlying records be transmitted between the feedstock supplier and the renewable fuel producer, but rather that the feedstock supplier and the renewable fuel producer would collectively have to demonstrate the chain-of-custody for the feedstock back to the origin of the renewable biomass. Under our proposal, the QAP auditors would verify the chain of custody, which is similar to CARB's annual verification process.

We believe that by allowing renewable fuel producers to opt into these limited additional requirements, more renewable fuel can be produced under the RFS program. We are requesting comments on this proposal and are specifically interested in the perspective of renewable fuel producers, independent auditors, and feedstock suppliers about how this alternative recordkeeping requirement would fit within their current business practices.

K. Definition of Ocean-Going Vessels

We are proposing to amend the definition of ''fuel used in ocean-going vessels'' to ensure that obligated parties are including diesel fuel in their RVOs in a consistent manner and as required by the CAA. Fuel used in ocean-going vessels is explicitly excluded from the CAA's definition of ''transportation fuel,'' [383] and does not need to be included in RVO calculations.[384] Our regulations define the term ''[f]uel for use in an ocean-going vessel'' to mean: ''(1) any marine residual fuel (whether burned in ocean waters, Great Lakes, or other internal waters); (2) Emission Control Area (ECA) marine fuel, pursuant to § 80.2 and 40 CFR 1090.80 (whether burned in ocean waters, Great Lakes, or other internal waters); and (3) Any other fuel intended for use only in ocean-going vessels.'' [385] The term ''ocean-going vessels'' referenced in sub-prong (3), however, is not further defined in the regulations.

In the preamble promulgating the RFS2 regulations, we stated:

> With respect to fuels for use in ocean-going vessels, [the Energy Independence and Security Act (EISA)] specifies that 'transportation fuels' do not include such fuels. We are interpreting that 'fuels for use in ocean-going vessels' means residual or distillate fuels other than motor vehicle, nonroad, locomotive, or marine diesel fuel (MVNRLM) intended to be used to power large ocean-going vessels (*e.g.,* those vessels that are powered by Category 3 (C3), and some Category 2 (C2), marine engines and that operate internationally). Thus, fuel for use in ocean-going vessels, or that an obligated party can verify as having been used in an ocean-going vessel, will be excluded from the renewable fuel standards.[386]

This statement made clear that vessels powered by C3 marine engines are ocean-going vessels and that fuel supplied to those vessels do not need to be included in obligated parties' RVO calculations. The reference to ''and some Category (C2) marine engines'' is further explained in the Response to Comments document accompanying the final RFS2 regulations, where we stated:

> With respect to the comments that EPA should not allow the term ''ocean-going vessel'' to include Category 2 engines, we note that Category 1 and Category 2 engines/vessels are generally subject to the NRLM diesel fuel standards. Since NRLM diesel fuel would not be considered part of ''fuels for use in ocean-going vessels'', this means that the vast majority of fuel used by Category 1 and Category 2 engines would be considered part of ''transportation fuels''. However, our recent rulemaking to establish new standards for Category 3 engines included a provision that would effectively allow Category 1 and 2 auxiliary engines installed on Category 3 vessels (*i.e.,* those vessels powered by Category 3 engines) to utilize fuels other than NRLM. This allowance is to reduce the burden that could potentially be caused by requiring that these Category 1 and 2

[376] Cal. Code Regs. tit. 17, § 95488.

[377] Cal. Code Regs. tit. 17, § 95488(b).

[378] Cal. Code Regs. tit. 17, § 95488(b).

[379] Cal. Code Regs. tit. 17, § 95488.8(g).

[380] Cal. Code Regs. tit. 17, § 95488.8(g)(1)(B)(1) through (3).

[381] Cal. Code Regs. tit. 17, § 95488.8(g)(1)(B).

[382] Cal. Code Regs. tit. 17, §§ 95491.1(a)(2) and 95491.1(c)(2)(I).

[383] CAA section 211(o)(1)(L).

[384] 40 CFR 80.1407(f)(8).

[385] 40 CFR 80.1401.

[386] 75 FR 14670, 14721 (March 26, 2010).

auxiliary engines burn 15 ppm diesel fuel—which could result in a Category 3 vessel needing to carry three different types of fuel onboard. Thus, to the extent that these engines use residual fuel or ECA marine fuel, their fuel would also not be considered ''transportation fuels''.[387]

In other words, the reference to ''and some Category (C2) marine engines'' in the preamble to the final RFS2 rule refers to auxiliary engines equipped on vessels that are primarily powered by C3 marine engines.

Since the RFS2 regulations were promulgated, we have received several questions from the regulated community on the subject of what constitutes an ocean-going vessel, and what fuel must be included in obligated parties' RVO calculations. To address this, we are proposing to define ''ocean-going vessels'' as ''vessels that are primarily (*i.e.,* ≥75 percent) propelled by engines meeting the definition of ''Category 3'' in 40 CFR 1042.901.'' If a vessel is primarily propelled by C3 marine engines, it is an ocean-going vessel. Further, fuel used in Category 1 (C1) and Category 2 (C2) auxiliary engines installed on ocean-going vessels do not need to be included in obligated parties' RVO calculations because the inquiry turns on the type of engine that primarily propels the vessel, not the actual engines that use the fuel. Auxiliary engines are often used for purposes other than propulsion. On the other hand, if a vessel is primarily propelled by C1 or C2 marine engines, they are not ocean-going vessels regardless of whether those vessels operate on international waters, and fuel supplied to these vessels must be included in obligated parties' RVO calculations.

We are also proposing to modify the definitions of MVNRLM diesel fuel and ECA marine fuel to be consistent with the flexibilities that allow for the exclusion of certified NTDF from refiners' RVOs and the flexibilities to certify diesel fuel for multiple purposes as allowed under Fuels Regulatory Streamlining. Specifically, we are proposing to remove the restriction that fuel that meets the requirements of MVNRLM diesel fuel cannot be ECA marine fuel as this exclusion in the definitions conflicts with the designation provisions in 40 CFR part 1090. We note that we are not proposing to change the treatment of certified NTDF under the RFS program in this action.

Under the current definitions for MVNRLM diesel fuel and ECA marine fuel, the definitions exclude fuel that conforms to the requirements of MVNRLM diesel fuel from the definition of ECA marine fuel, without regard to its actual use. Under this language, obligated parties who produced 15 ppm diesel fuel must include the designated MVNRLM diesel fuel in their RVO calculations even if the fuel is designated and used as ECA marine fuel.

On February 6, 2020, EPA promulgated regulations to allow refiners and importers to exclude certified non-transportation 15 ppm distillate fuel or certified NTDF from their RVO calculations if certain conditions were met. The definition of certified NTDF includes 15 ppm fuel that is designated as ECA marine fuel. Since the NTDF regulations allow parties to exclude ECA marine fuel that is also certified NTDF from their RVO compliance calculations, we are also amending the definitions of MVNRLM diesel fuel and ECA marine fuel to clarify that 15 ppm distillate fuel that is properly designated as certified NTDF may also be designated as ECA marine fuel and excluded from a producer or importer's RVO calculations.

Under EPA's fuel quality regulations in 40 CFR part 1090, we allow diesel fuel manufacturers to apply multiple designations to a batch of diesel fuel so long as all applicable regulatory requirements are met for each designation. A party downstream of the diesel fuel manufacturer may then determine how that batch of diesel fuel is ultimately used consistent with market demand. For example, a diesel fuel manufacturer can designate a diesel fuel batch that meets the ULSD standards as ULSD, ECA marine fuel, and heating oil, and then a terminal operator may use such fuel for any of those uses so long as all applicable regulatory requirements are met.

Under the certified NTDF provisions, in order for diesel fuel to be considered certified NTDF and thus eligible for exclusion from an obligated party's RVO, the diesel fuel must have been certified as meeting the ULSD standards, designated as certified NTDF, designated as 15 ppm heating oil, 15 ppm ECA marine fuel, or other non-transportation fuel (*e.g.,* jet fuel, kerosene, or distillate global marine fuel), and not been designated as ULSD or 15 ppm MVNRLM diesel fuel.

This means that regardless of whether a diesel fuel manufacturer designates a batch of fuel for a non-transportation use, if a diesel fuel manufacturer designates the batch as ULSD or MVNRLM diesel fuel, the batch must be included in their RVOs. Together, these provisions provide significant flexibility regarding the designation, distribution, and use of distillate fuels that meet the ULSD standards.

L. Bond Requirement for Foreign RIN-Generating Renewable Fuel Producers

The current bond requirement applicable to foreign RIN-generating renewable fuel producers and Foreign RIN owners was developed in the RFS 1 rule[388] to deter noncompliance and to assist with the collection of any judgments that result from a foreign RIN-generating renewable fuel producer's noncompliance with the RFS regulations. In that rulemaking, the bond was set to $0.01 per RIN, when the expected value of RINs was much lower. Since 2013, RIN prices have hovered significantly above $0.01, and in the past twelve months, RINs in all categories have consistently sold above $1.00 per RIN.[389] The increased value of RINs makes a bond requirement of $0.01 per RIN insufficient to deter potential noncompliance nor is it likely to yield bonds of sufficient size to satisfy judicial or administrative judgments against foreign RIN-generating renewable fuel producers or foreign RIN owners. For these reasons, we believe it is necessary to raise the bond requirement to more accurately reflect the current value of RINs so that bonds can serve their intended purposes. We are proposing raising the bond requirement from $0.01 per RIN to $0.30 per RIN, and we are seeking comment on whether this increase is significant enough for the bond to serve its intended purposes.

The existing regulation at 40 CFR 80.1466(h) allows either direct payment to the U.S. Treasury in the calculated amount of a bond or the posting of a surety bond to fulfill the foreign bond requirement. EPA cannot easily process direct payments to the U.S. Treasury made by check, nor can EPA easily refund such payments to the payor. Therefore, EPA proposes to remove direct payment to the U.S. Treasury as an option. We seek comment on how this change affects RIN-generating foreign producers and foreign RIN owners and if there are other options that would provide adequate security, accountability, and ease of use for the EPA, RIN-generating foreign producers, and foreign RIN owners.

[387] U.S. EPA, Renewable Fuel Standards Program (RFS2) Summary and Analysis of Comments, at 3–198–3–200. (February 2010).

[388] 72 FR 24007 (May 1, 2007).

[389] See RFS pricing data available at: *https://www.epa.gov/fuels-registration-reporting-and-compliance-help/rin-trades-and-price-information.*

M. Definition of Produced From Renewable Biomass

CAA section 211(o)(1)(J) defines renewable fuel as ''fuel that is produced from renewable biomass and that is used to replace or reduce the quantity of fossil fuel present in a transportation fuel.'' CAA section 211(o)(2)(A)(i) adds the requirement that renewable fuel must have ''lifecycle [GHG] emissions that are at least 20 percent less than baseline lifecycle [GHG] emissions'' (unless exempted under the statutory grandfather provision as implemented in 40 CFR 80.1403). In the 2020–2022 RFS Annual Rule, we proposed to define in 40 CFR 80.1401 that ''produced from renewable biomass'' means the energy in the finished fuel comes from renewable biomass. After reviewing comments on that proposal, we decided not to finalize a definition for ''produced from renewable biomass'' in that action. In this rule, we are re-proposing the definition of ''produced from renewable biomass'' that was in the 2020–2022 RFS Annual Rule, as well as seeking comment on alternative definitions or ways that renewable fuel producers could demonstrate that the fuel they produce meets this statutory requirement.[390]

As described in the 2020–2022 RFS Annual Rule, we believe a definition of ''produced from renewable biomass'' is needed because we have received multiple questions from stakeholders on this aspect of the renewable fuel definition. Clarifying what it means for a fuel to be produced from renewable biomass would reduce confusion on this issue. In particular, we want to avoid a situation where a party expends resources on researching or developing a new fuel technology with the hopes of generating RINs only to later discover that the fuel does not qualify as having been produced from renewable biomass.

In comments on the proposed definition of ''produced from renewable biomass'' in the 2020–2022 RFS Annual Rule commenters identified two primary ways that renewable fuels could meet this statutory requirement. Some commenters supported the proposed definition wherein the energy in the finished fuel is derived from renewable biomass. Other commenters suggested an alternative in which a fuel would be deemed to have been produced from renewable biomass if the mass or molecules in the fuel were from renewable biomass.

The CAA does not define the term ''produced from renewable biomass,'' and we believe that this phrase allows for multiple interpretations, including that renewable fuels must contain energy from renewable biomass or that they must contain mass from renewable biomass. The case for defining produced from renewable biomass as containing energy from renewable biomass is primarily based on the fact that the fundamental purpose of transportation fuel is to provide motive energy to vehicles and engines. Thus, the source of the energy in the finished fuel should be the criterion for determining whether that fuel was produced from qualifying renewable biomass. It is also consistent with the statutory definition that renewable fuel must ''be used to replace or reduce the quantity of fossil fuel present in a transportation fuel.'' Fuel that derives its energy from fossil fuel (a subset of non-renewable feedstocks) is replacing one form of fossil fuel for another, not reducing the quantity of fossil fuel present in a transportation fuel.

Conversely, the case for defining produced from renewable biomass as containing mass from renewable biomass is based on the term ''produced'' and the fact that fuels must also reduce lifecycle GHG emission to qualify as a renewable fuel under the RFS program. As provided in comments on EPA's proposed definition in the 2020–2022 RFS Annual Rule, the definition of ''produced'' is to ''make or manufacture from components or raw materials.'' [391] According to this definition it is the components or raw materials (*i.e.,* the mass that comprise a fuel) that determine from what it is produced. Commenters also noted that to qualify as a renewable fuel the fuel must reduce lifecycle GHG emissions by at least 20 percent. These parties claim that the lifecycle GHG emission requirement effectively addresses the sources of energy used to produce renewable fuels and prevents the qualification of fuels that rely on excessive amounts of non-renewable energy sources that would increase GHG emissions in the transportation sector.

To inform our consideration of these two potential definitions of produced from renewable biomass, we also considered how various fuels would be impacted by applying one or the other. The vast majority of renewable fuel pathways that are currently approved under the RFS program would continue to qualify as renewable fuels under either definition of produced from renewable biomass. The majority of these fuels, such as ethanol, biodiesel, CNG/LNG, etc. contain little or no energy or mass from non-renewable biomass. Further, for fuels such as denatured ethanol or biodiesel that do contain energy or mass from non-renewable biomass we have generally accounted for the non-renewable portion of the fuel in the number of RINs generated per gallon of fuel produced.[392] However, the application of the ''produced from renewable biomass'' requirement is less clear for some newer fuel technologies that are being developed by stakeholders.

For some emerging renewable fuel production technologies, these two different definitions of produced from renewable biomass produce very different results. Two examples that illustrate the importance of this definition are hydrogen produced from biogas and e-fuels (fuels made from CO_2, water, and electricity). For a fuel production process where hydrogen is produced from biogas from a qualifying source (*e.g.,* from a landfill or agricultural digester) and biogas is used as both the feedstock and energy source to produce hydrogen in a steam methane reformer (SMR), all of the energy in the hydrogen comes from renewable biomass. Conversely, because half of the mass of hydrogen produced through the SMR process are from water, which does not meet the statutory definition of renewable biomass, only half of the mass is from renewable biomass.

The implications for e-fuels are even more significant, as the definition of produced from renewable biomass would determine not how many RINs could be generated, but whether the fuels qualified as renewable fuel at all. For e-fuels produced using CO_2 from qualifying renewable biomass, such as that produced when fermenting corn starch to ethanol, and wind or solar electricity providing the energy, none of the energy in the finished fuel is from renewable biomass despite the fact that most of the mass in the fuel is from renewable biomass. Theoretically, e-

[390] Any comments submitted on this matter in the 2020–2022 RVO action must be re-submitted to the docket for this rule to be considered. Any comments that are not re-submitted to the docket for this action will not be considered.

[391] See definition of ''produce.'' *Oxford Languages Dictionary. https://languages.oup.com/google-dictionary-en.*

[392] The renewable content of a renewable fuel is also addressed in the calculation of its Equivalence Value under 40 CFR 80.1415. In the specific case of ethanol, the denaturant that is added to ethanol is considered to be renewable despite the fact that it is not produced from renewable biomass in order to maintain consistency with the program's original expectations. This issue is discussed in the 2007 rulemaking which established the RFS program. 72 FR 23920 (May 1, 2007). Similarly, we have accounted for the methanol used to produce biodiesel (which is generally produced from non-renewable natural gas) in the equivalence value for biodiesel.

fuels produced using CO_2 from qualifying biomass and electricity generated using natural gas or coal could also qualify as a renewable fuel if the definition of produced form renewable biomass required that the mass of the fuel come from renewable biomass, but it is very unlikely that such fuels would meet the GHG reduction threshold to qualify as renewable fuel. For e-fuels produced using CO_2 from sources other than renewable biomass, such as CO_2 captured from the air or a coal power plant, and electricity generated using qualifying biogas, all of the energy in the fuel is from renewable biomass but none of the mass of the fuel is from renewable biomass.

As the examples listed here demonstrate, under either interpretation of what it means for a fuel to be produced from renewable biomass there are situations where a fuel would only be partially produced from renewable biomass. These are cases where some of the energy or the mass in the finished fuel is from renewable biomass and the remainder is not. In comments on the 2020–2022 RFS Annual Rule NPRM several parties raised concerns that our proposed definition of produced from renewable biomass would disqualify fuels from being considered renewable fuel, and thus eligible to generate RINs, if even a portion of the fuel was not produced from renewable biomass. These commenters often noted that such a strict interpretation would disqualify fuels such as biodiesel and renewable diesel that contain some non-renewable content. This was not the intent of the definition of produced from renewable biomass that we proposed in that action, nor our intent in this re-proposal. While we do not believe that fuel producers should be able to generate RINs for the portion of the finished fuel that is not derived from renewable biomass, we are not proposing to completely disqualify fuels that contain any portion of non-renewable biomass. Rather, such fuels are subject to equations in the regulations for the RFS program that determine the portion of the fuel that is produced from renewable biomass and can only generate RINs for this portion of the fuel. We note that as part of this proposal to define ''produced from renewable biomass'' we are also proposing new regulations for determining the renewable content of fuels that are produced from both renewable biomass and feedstocks that are not renewable biomass, fuels that contain process energy that is not derived from renewable biomass, and fuels that are produced through multiple pathways with different D codes. These new regulations are discussed in greater detail at the end of this section.

Further examples of how different fuel types would qualify under the two potential definitions, including fuels that are produced from both renewable and non-renewable biomass, are shown in Table IX.M–1. In this table the term feedstock is used to refer to the source or sources of the mass in the finished fuel. The energy in the finished fuel could come exclusively from the feedstock (if the process of converting the feedstock is exothermic) or could come from both the feedstock and the process energy (if the process of converting the feedstock is endothermic). Ethanol and biodiesel are examples of fuels where all of the energy in the fuel comes from the feedstock. In these cases, the source of the process energy has no impact on whether a fuel is produced from renewable biomass, but the source of the process energy does impact the lifecycle GHG emissions of the fuel. Hydrogen produced through an SMR process is an example where some of the energy in the fuel comes from the process energy. In situations where some of the energy in the fuel comes from the process energy whether the process energy is renewable biomass or not impacts the degree to which the finished fuel is produced from renewable biomass if we define produced from renewable biomass based on the energy in the finished fuel. For example, because a portion of the energy in hydrogen produced using an SMR process comes from the process energy, hydrogen produced using this process would generate a greater number of RINs if the process energy is from qualifying biogas (renewable biomass) than if the process energy is from natural gas (not renewable biomass). We note that the fuels and values in this table are only illustrative and do not represent determinations as to the eligibility of a fuel or the percentage of a fuel that would be produced from renewable biomass under these respective definitions.

TABLE IX.M–1—RENEWABLE CONTENT OF VARIOUS FUELS UNDER DIFFERENT DEFINITIONS OF PRODUCED FROM RENEWABLE BIOMASS

[Illustrative examples]

Fuel	Feedstock	Process energy	Definition of ''produced from renewable biomass''	
			Energy from renewable biomass (%)	Mass from renewable biomass (%)
Ethanol	Corn Starch	Natural Gas	100	100
Biodiesel	Soybean Oil and Methanol	Natural Gas	95	95
CNG/LNG	Biogas	Grid Electricity	100	100
Hydrogen (SMR)	Biogas and Water	Biogas	100	50
Hydrogen (SMR)	Biogas and Water	Natural Gas	65	50
Hydrogen (Electrolysis)	Water	Biogas Electricity	100	0
Hydrogen (Electrolysis)	Water	Wind/Solar Electricity	0	0
Electricity	Biogas	Biogas	100	N/A
eFuel	Renewable Biomass CO_2	Wind/Solar Electricity	0	90
eFuel	Renewable Biomass CO_2	Coal/Natural Gas Electricity	0	90
eFuel	Non-Renewable Biomass CO_2 (Air Capture or Fossil CO_2).	Biogas Electricity	100	0

In this rule, we are proposing to add a definition of ''produced from renewable biomass'' to the regulations at 40 CFR 80.2. We propose that produced from renewable biomass means that the energy in the finished fuel or

biointermediate must come from renewable biomass.[393] We recognize that this is not the only potentially reasonable definition of produced from renewable biomass, and that the choice of this definition could have a significant impact on the development of some fuel production technologies with the potential to significantly reduce GHG emissions from the transportation sector. We are therefore requesting comment on an alternative definition: that produced from renewable biomass would mean that the mass of the finished fuel or biointermediate must come from renewable biomass. We note that one potential challenge with this definition is that electricity, for which we are proposing regulations to enable the generation of RINs when the electricity is generated from qualifying biogas or renewable natural gas and used as transportation fuel, contains no mass from the biogas or renewable natural gas. We therefore seek comment on how electricity, which EPA determined in 2010 could meet the statutory definition of renewable fuel, would be treated in the RFS program if this alternative definition were finalized.[394]

In response to the proposed definition of produced from renewable biomass in the 2020–2022 RFS Annual Rule we also received comments saying that EPA should interpret this phrase as broadly as possible. Parties making these comments generally argued that EPA should seek to leverage the incentives provided by the RFS program to reduce GHG emissions to the greatest extent possible, and that a broad definition of produced from renewable biomass would best achieve this aim. Several of these parties also stated that given the existence of multiple potentially reasonable interpretations of this phrase EPA should allow any fuel that can demonstrate that it is produced from renewable biomass under any reasonable interpretation to be eligible to generate RINs under the RFS program. We are therefore requesting comment on an approach that would allow fuels to qualify as renewable fuel under the RFS program if producers can demonstrate that either the molecules contained in the fuel or the energy in the fuel was sourced from renewable biomass.[395]

We are also including an alternative set of draft regulations in a technical memorandum [396] that would be consistent with defining produced from renewable biomass such that the mass in the finished fuel or biointermediate must come from renewable biomass. We would intend to adopt these alternative proposed regulations if we finalized this alternative definition of produced from renewable biomass. Were we to finalize a definition of produced from renewable biomass allowing fuels to qualify under the RFS program if the producer could demonstrate that either the mass or the energy in the fuel are sourced from renewable biomass, we anticipate that we would finalize regulations consistent with the proposed regulatory changes, but we would also include the unique elements from the alternative regulations.

Consistent with the proposed definition of produced from renewable biomass (that the energy in the finished fuel or biointermediate must come from renewable biomass), we are proposing modifications to the existing regulatory previsions in 40 CFR 80.1426(f)(3) for determining the number of RINs that can be generated for fuels produced from multiple pathways with different D codes. These proposed changes would ensure that the RINs of different D codes are generated proportional to the energy in the fuel that came from the corresponding pathways.[397] For example, if a renewable fuel producer simultaneously converted waste sugary beverages (*i.e.,* separated food waste qualifying for D5 RINs) with corn starch (*i.e.,* feedstock qualifying for D6 RINs) to produce ethanol via fermentation, these proposed changes would base RIN generation by pathway on the relative proportion of energy in the final fuel attributed to the feedstocks by D code. If 10 percent of the energy in the ethanol came from separated food waste, then 10 percent of the RINs would be generated under the D5 pathway.

We are also proposing changes to regulatory provisions related to co-processed fuels to ensure that they would be consistent with the proposed definition of produced from renewable biomass. The existing regulations contain the following definition in 40 CFR 80.1401:

> *Co-processed* means that renewable biomass or a biointermediate was simultaneously processed with fossil fuels or other non-renewable feedstock in the same unit or units to produce a fuel that is partially derived from renewable biomass or a biointermediate.

This definition states that the feedstocks used to produce a fuel determine whether the fuel is co-processed or not, which in turn determines whether the fuel producers must generate fewer RINs than they otherwise would if the fuel had not been produced from co-processing to account for the feedstock that does not qualify as renewable biomass. As with the definition of produced from renewable biomass, this definition for co-processed may be reasonable for many of the existing pathways, where nearly all of the energy and molecules in the fuel come from the feedstocks. However, with the narrow focus on the feedstocks used to produce a fuel this definition of co-processed does not reflect the fact that for other potential pathways such as hydrogen and e-fuels a portion of the energy in the fuel comes from the process energy. Thus, to be consistent with our proposed definition of produced from renewable biomass, we are also proposing to change the definition of co-processed to a definition of co-processed fuel or co-processed intermediate to mean a fuel or intermediate that contains energy from both renewable biomass and non-renewable biomass.

We are also proposing new regulatory provisions and modifications to the existing regulatory provisions in 80.1426(f)(4) for determining the number of RINs that can be generated for fuels that are co-processed that would be consistent with the proposed revision to the definition of co-processed. These proposed changes would provide greater clarity on the required methods for determining the number of RINs that can be generated for co-processed fuels. The proposed changes also add a new formula for cases where a portion of the energy in the fuel comes from the process energy, rather than from the feedstocks. We are also proposing to update the registration requirements in 80.1450(b)(1)(xviii) and recordkeeping requirements in 80.1454(b)(3)(ix) to ensure that the equations used for determining the number of RINs are used appropriately and that sufficient records exist for oversight and enforcement.

We note that under this proposal, we believe that most producers would be largely unaffected because they either

[393] Because biointermediates, like renewable fuels, must be produced from renewable biomass to qualify in the RFS program we are proposing that the definition of produced from renewable biomass apply to both finished fuels and biointermediates.

[394] See Section VIII.A.1 for a further discussion of this topic.

[395] The fuel would also have to meet the other requirements for qualifying as a renewable fuel, including being used to replace or reduce the quantity of fossil fuel present in a transportation fuel and meeting the GHG reduction requirements.

[396] Draft Regulations for the Alternative Definition of Produced from Renewable Biomass. Memorandum from EPA to Docket EPA–HQ–OAR–2021–0427.

[397] We believe this change addresses a comment on 2020–2022 RFS rule that suggested that the current RIN apportionment equations biased higher energy density feedstocks. See Docket Item No. EPA–HQ–OAR–2021–0324–0434.

do not co-process renewable biomass with non-renewable biomass feedstocks or have already been registered for co-processing and would continue to use their currently registered method of determining the number of RINs to be generated from a co-processed fuel. However, under this proposal, we believe that renewable diesel produced via hydrotreating would be affected because some of the energy in the fuel comes from hydrogen, which in many cases is produced from natural gas. Under the proposed approach, they would generate RINs based on the portion of the energy in the renewable diesel that is from renewable biomass.

Recognizing that this would be a change from current RIN generation procedures, we seek comment on potential ways to address this situation. One option is to maintain the proposal (which would result in renewable diesel producers using hydrogen produced from natural gas generating slightly fewer RINs than under the current regulations) and, in a future action, allow for parties to replace the hydrogen with renewable hydrogen (*i.e.,* hydrogen produced from biogas that is produced from renewable biomass) for RIN generation. Some parties have discussed the possibility of using renewable hydrogen as a substitute for the fossil-derived hydrogen for the generation of advanced or cellulosic RINs based on the energy in the renewable diesel produced from the renewable hydrogen. We believe that the existing regulations do not currently accommodate the generation of such RINs in part because the RIN generation procedure for renewable diesel is to assume that 100 percent of the renewable diesel came from the non-hydrogen feedstocks.[398] This proposal would allow parties that wished to replace fossil-derived with renewable hydrogen the opportunity to generate additional RINs proportional to the amount of energy in the renewable diesel that came from renewable hydrogen.

Another option would be to adjust the equivalence value for RIN generation for renewable diesel to account for the fact that a portion of the energy in the fuel was not produced from renewable biomass. We could do this in two ways. First, we could increase the minimum level of energy per gallon needed to qualify for the existing equivalence value for renewable diesel (1.7) to account for the non-renewable portion of the co-processed fuel. Under this option, the minimum amount of energy per gallon needed to qualify for the 1.7 RINs per gallon equivalence value would need to be increased from 123,500 Btu/gallon to account for the non-renewable portion of the co-processed renewable diesel. Alternatively, we could lower the equivalence value itself from 1.7 RINs per gallon to 1.6 RINs per gallon to accommodate the non-renewable portion of the co-processed fuel, and adjust the minimum quantity of BTUs per gallon necessary to qualify for this equivalence value accordingly. The second option is similar to the approach we took with biodiesel to deal with the fact that some of the energy in biodiesel is a result of non-renewable methanol to produce the biodiesel.[399]

We request comment on these proposed regulatory changes, as well as the draft regulations for the alternative proposed definition of produced from renewable biomass.

N. Limiting RIN Separation Amounts

We are proposing to limit the assignment to and separation of RINs for a gallon of renewable fuel (including RNG) to the equivalence value of the renewable fuel. Under the current RFS regulations, parties are allowed to assign and separate RINs to a volume of renewable fuel up to 2.5 RINs per gallon.[400]

This proposed change is necessary for the proposed biogas regulatory reform provisions to ensure that only the RINs generated for and assigned to the specific volume of RNG injected into the natural gas commercial pipeline system are separated after the RNG has been used as transportation fuel. Without this proposed change, it would be possible for parties to assign additional RINs to the volume of RNG, which may be inadvertently or improperly separated by downstream parties. This issue arises from how RINs are transacted in EMTS. By default, EMTS separates RINs in a RIN-owner's account on a first in, first out basis; *i.e.,* when a party separates RINs, it separates the first RINs received in their account, not necessarily the RINs that were generated from the specific volume of renewable fuel. Each party that transacted the inadvertently separated RIN would have a potential violation which would be unnecessarily burdensome on industry. We did not foresee this occurrence when we originally promulgated the regulations and set up EMTS, but now recognize it as an issue. An alternative to limiting RIN assignment and separation to the equivalence value of the fuel would be to redesign EMTS which would take significant resources and time and likely disrupt current RIN transaction processes by industry. Such an effort would also likely delay the implementation date of the biogas regulatory reform provisions and consequently the eRINs proposal.

We also believe this change could help bring transparency to RIN assignment and separation practices for other renewable fuels. We are aware of practices where renewable fuel producers, in coordination with an obligated party, use the separation provisions of 40 CFR 80.1429(b)(2) to separate RINs assigned to volumes of renewable fuel so that a renewable fuel producer can obtain both the separated RINs and RIN-less renewable fuels and then later assign RINs from other producers to the fuel or sell the fuel without RINs. This process, sometimes called ''RIN-flashing,'' can lead to parties that transact RINs or fuel to be less aware of who made the fuel or generated the RINs. One of the regulatory mechanisms that parties use to move these separated RINs is the ability to assign more RINs to a volume of renewable fuel than were able to be generated for the fuel using the equivalence value. Again, we did not foresee parties using the regulations in this manner when we promulgated them and the process of ''RIN-flashing,'' which undermines the ability of parties to ascertain the origin and validity of fuels and RINs, is contrary to our intent. By setting the separation limit to the equivalence value, parties would not be able to move excess separated RINs with a volume of renewable fuel and would be disincentivized from engaging in so-called RIN-flashing.

Imposing the proposed limitation of RIN assignment and separation to be based on the equivalence value of the renewable fuel would also help EPA implement the RFS program because we could establish a single set of rules that apply to all RINs instead of having separate sets of rules that apply to RNG RINs and to non-RNG RINs. This would also facilitate EPA to implement the proposed eRINs program and biogas regulatory reform provisions in the proposed timeframes.

We understand that this change would likely require parties that currently transact RINs to make adjustments to their RIN assignment and separation practices. As such, we are proposing that this change would go into effect on January 1, 2024. We seek comment on our proposal to limit separations to the equivalence value of the renewable fuel.

[398] See 40 CFR 80.1426(f)(2).

[399] See ''Calculation of Equivalence Values for renewable fuels under the RFS program'' Docket Item No. EPA–HQ–OAR–2005–0161–0046.

[400] See 40 CFR 80.1426(b).

O. Technical Amendments

We are proposing to make numerous technical amendments to the RFS and fuel quality regulations. These amendments are being made to correct minor inaccuracies and clarify the current regulations. These changes are described in Table IX.O–1.

TABLE IX.O–1—MISCELLANEOUS TECHNICAL CORRECTIONS AND CLARIFICATIONS TO RFS AND FUEL QUALITY REGULATIONS

Part and section of title 40	Description of revision
80.2	Adding definition of business days consistent with the definition at 40 CFR 1090.80.
80.2	Clarifying the definition of renewable fuel to specify that fuel must be used in the covered location.
80.4, 80.7, 80.24, and 80.1415 through 80.1478	Removing all references to ''the Administrator'' and replacing them with ''EPA''.
80.1401, 80.1408, and 1090.1015	Amending the definition of certified non-transportation distillate fuel (NTDF) at 40 CFR 80.1401 and the diesel fuel designation requirements under 40 CFR 1090.1015 to clarify that the certified NTDF provisions at 40 CFR 80.1408 may be used for NTDF other than heating oil or ECA marine fuel.
80.1401 and 80.1453(a)(12)	Clarifying that renewable naphtha may be blended to make E85.
80.1450(b)(1)(viii)(E)	Clarifying that independent third-party engineers must visit material recovery facilities as part of the engineering review for facilities that produce renewable fuels from separated MSW.
80.1469(c)(6)	Clarifying that independent third-party auditors must review all relevant documentation required under the RFS program when verifying elements under the QAP program.
1090.55(c)	Amending to correct cross-reference from 40 CFR part 32 to 2 CFR part 1532.
1090.80	Amending to correct the list of states that are part of PADD II.
1090.805(a)(1)(iv)	Clarifying that RCOs may add a delegate, as allowed under 1090.800(d).
1090.1830(a)(3)	Amending to add a missing word.

X. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at *https://www.epa.gov/laws-regulations/laws-and-executive-orders.*

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

This action is an economically significant regulatory action that was submitted to the Office of Management and Budget (OMB) for review. Any changes made in response to OMB recommendations have been documented in the docket. EPA prepared an analysis of potential costs and benefits associated with this action. This analysis is presented in the DRIA, available in the docket for this action.

B. Paperwork Reduction Act (PRA)

The information collection activities in this proposed rule have been submitted for approval to the Office of Management and Budget (OMB) under the PRA. The Information Collection Request (ICR) document that EPA prepared has been assigned EPA ICR number 2722.01. You can find a copy of the ICR in the docket for this rule, and it is briefly summarized here.

We are proposing compliance provisions necessary to ensure that the production, distribution, and use of biogas, renewable electricity, and RINs are consistent with Clean Air Act requirements under the RFS program. These proposed compliance provisions include registration, reporting, product transfer documents (PTDs), and recordkeeping requirements. The information requirements are under 40 CFR part 80, subpart M, 40 CFR part 1090, and proposed subpart E. Interested parties may wish to review the following related ICRs: Fuels Regulatory Streamlining (Final Rule), OMB Control Number 2060–0731, expires January 31, 2024, and Renewable Fuel Standard (RFS) Program (Renewal), OMB Control Number 2060–0725, submitted for renewal on August 31, 2022, and pending OMB approval.

Respondents/affected entities: Biogas producers; renewable energy generators; renewable electricity RIN generators (RERGs); renewable natural gas (RNG) producers; RNG importers; producers of biogas-derived renewable fuel in a closed distribution system; RNG RIN separators; and third parties; including third party engineers, attest auditors, QAP providers.

Respondent's obligation to respond: Mandatory, under 40 CFR parts 80 and 1090.

Estimated number of respondents: 10,454.

Frequency of response: On occasion, monthly, quarterly, or annually.

Total estimated burden: 181,794 hours (per year). Burden is defined at 5 CFR 1320.3(b).

Total estimated cost: $22,422,240, all purchased services, and which includes $0 annualized capital or operation & maintenance costs.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations in 40 CFR are listed in 40 CFR part 9.

Submit your comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden to the EPA using the docket identified at the beginning of this rule. The EPA will respond to any ICR-related comments in the final rule. You may also send your ICR-related comments to OMB's Office of Information and Regulatory Affairs using the interface at *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under Review—Open for Public Comments'' or by using the search function. OMB must receive comments no later than February 28, 2023.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA.

With respect to eRIN regulatory program discussed in Section VIII, participation in the proposed renewable electricity program would be purely voluntary. We do not believe that a small biogas producer, renewable electricity generator, or light-duty OEM would choose to take advantage of the proposed eRIN program unless there is

sufficient economic incentive for them to do so. No party would be compelled to produce or use biogas or renewable electricity, and as such, any costs associated with these provisions would also be purely voluntary. Also, the proposed eRIN program would create new opportunities for small entities that may be able to build smaller operations or develop previously uneconomical projects. These entities would likely not be able to otherwise participate in the RFS program. With respect to the other amendments to the RFS regulations, this action proposes to make corrections and modifications to those regulations that would make compliance more straightforward. As such, we do not anticipate that there would be any significant adverse economic impact on directly regulated small entities as a result of the proposed provisions.

The small entities directly regulated by the annual percentage standards associated with the RFS volumes are small refiners that produce gasoline or diesel fuel, which are defined at 13 CFR 121.201. To evaluate the impacts of the volume requirements on small entities, we have conducted a screening analysis [401] to assess whether we should make a finding that this action will not have a significant economic impact on a substantial number of small entities. Currently available information shows that the impact on small entities from implementation of this rule will not be significant. We have reviewed and assessed the available information, which shows that obligated parties, including small entities, are able to recover the cost of acquiring the RINs necessary for compliance with the RFS standards through higher sales prices of the petroleum products they sell than would be expected in the absence of the RFS program.[402] This is true whether they acquire RINs by purchasing renewable fuels with attached RINs or purchase separated RINs. The costs of the RFS program are thus being passed on to consumers in the highly competitive marketplace.

While the rule will not have a significant economic impact on a substantial number of small entities, there are existing compliance flexibilities in the program that small entities can take advantage of. These flexibilities include being able to comply through RIN trading rather than renewable fuel blending, 20 percent RIN rollover allowance (up to 20 percent of an obligated party's RVO can be met using previous-year RINs), and deficit carry-forward (the ability to carry over a deficit from a given year into the following year, provided that the deficit is satisfied together with the next year's RVO). In the 2010 RFS2 final rule, we discussed other potential small entity flexibilities that had been suggested by the SBREFA panel or through comments, but we did not adopt them, in part because we had serious concerns regarding our authority to do so.

In sum, this proposed rule would not change the compliance flexibilities currently offered to small entities under the RFS program and available information shows that the impact on small entities from implementation of this rule will not be significant.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate of $100 million or more as described in UMRA, 2 U.S.C. 1531–1538, for state, local, or tribal governments. This action imposes no enforceable duty on any state, local or tribal governments. This action would contain a federal mandate under UMRA that may result in expenditures of $100 million or more for the private sector in any one year. Accordingly, the costs associated with the proposed rule are discussed in Section IV and in the DRIA.

This action is not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the National Government and the states, or on the distribution of power and responsibilities among the various levels of government.

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

This action does not have tribal implications as specified in Executive Order 13175. This action will be implemented at the Federal level and affects transportation fuel refiners, blenders, marketers, distributors, importers, exporters, and renewable fuel producers and importers. Tribal governments will be affected only to the extent they produce, purchase, or use regulated fuels. Thus, Executive Order 13175 does not apply to this action.

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

This action is subject to Executive Order 13045 because it is an economically significant regulatory action as defined by Executive Order 12866, and the EPA believes that the environmental health or safety risk addressed by this action may have a disproportionate effect on children.

Children are more susceptible than adults to many air pollutants because of differences in physiology, higher per body weight breathing rates and consumption, rapid development of the brain and bodily systems, and behaviors that increase chances for exposure. Even before birth, the developing fetus may be exposed to air pollutants through the mother that affect development and permanently harm the individual.

Infants and children breathe at much higher rates per body weight than adults, with infants under one year of age having a breathing rate up to five times that of adults.[403] In addition, children breathe through their mouths more than adults and their nasal passages are less effective at removing pollutants, which leads to a higher deposition fraction in their lungs.[404]

Certain motor vehicle emissions present greater risks to children as well. Early life stages (*e.g.,* children) are thought to be more susceptible to tumor development than adults when exposed to carcinogenic chemicals that act through a mutagenic mode of action.[405] Exposure at a young age to these carcinogens could lead to a higher risk of developing cancer later in life.

The biofuel volumes associated with this rulemaking may reduce GHGs, potentially mitigating the impacts of climate change on children. In addition, to the extent increased use of renewable diesel resulting from this rule reduces end-use emissions, there may be public

[401] See DRIA Chapter 10.

[402] For a further discussion of the ability of obligated parties—including small refiners—to recover the cost of RINs, see ''April 2022 Denial of Petitions for RFS Small Refinery Exemption,'' EPA–420–R–22–005, April 2022 and ''June 2022 Denial of Petitions for RFS Small Refinery Exemption,'' EPA–420–R–22–011, June 2022.

[403] U.S. Environmental Protection Agency. (2009). Metabolically-derived ventilation rates: A revised approach based upon oxygen consumption rates. Washington, DC: Office of Research and Development. EPA/600/R–06/129F. *http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=202543.*

[404] Foos, B.; Marty, M.; Schwartz, J.; Bennet, W.; Moya, J.; Jarabek, A.M.; Salmon, A.G. (2008) Focusing on children's inhalation dosimetry and health effects for risk assessment: An introduction. J Toxicol Environ Health 71A: 149–165.

[405] U.S. Environmental Protection Agency. (2005). Supplemental guidance for assessing susceptibility from early-life exposure to carcinogens. Washington, DC: Risk Assessment Forum. EPA/630/R–03/003F. *https://www.epa.gov/sites/default/files/2013-09/documents/childrens_supplement_final.pdf.*

health benefits for children, particularly those who live or go to school near roads. Analysis conducted by EPA indicates that millions of Americans live within a few hundred yards of a truck route.[406] However, emissions data for vehicles running on renewable diesel fuel are too limited at present to draw any conclusions about potential air quality impacts.

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

This action is not a ''significant energy action'' because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. This action proposes the required renewable fuel content of the transportation fuel supply for 2023, 2024, and 2025 pursuant to the CAA. The RFS program and this rule are designed to achieve positive effects on the nation's transportation fuel supply by increasing energy independence and security.

I. National Technology Transfer and Advancement Act (NTTAA) & Incorporation by Reference

This action involves technical standards. In accordance with the requirements of 1 CFR 51.5, we are incorporating by reference the use of test methods and standards from the American National Standards Institute (ANSI), American Petroleum Institute (API), American Public Health Association (APHA), and ASTM International (ASTM). A detailed discussion of these test methods and standards can be found in Section VIII. The standards and test methods may be obtained through the ANSI website (*www.ansi.org*) or by calling ANSI at (212) 642–4980, the API website (*www.api.org*) or by calling API at (202) 682–8000, the APHA website (*www.standardmethods.org*) or by calling APHA at (202) 777–2742, and the ASTM website (*www.astm.org*) or by calling ASTM at (877) 909–2786. ANSI, API, APHA, and ASTM routinely update many of their reference documents. If an updated version of any of reference documents included in this proposal is published, we will consider referencing that updated version in the final rule. (In addition to the standards and test methods listed below, ASTM D975, ASTM D1250, ASTM D4442, ASTM D4444, ASTM D6751, ASTM D6866, and ASTM E870 are also referenced in the regulatory text of this proposed rule. They were approved for IBR for the sections referenced as of July 1, 2022, and no changes are being proposed. ASTM E711 is also referenced in the regulatory text of this proposed rule. It was approved for IBR for the section referenced as of July 1, 2010, and no changes are being proposed.)

TABLE X.I1—STANDARDS AND TEST METHODS TO BE INCORPORATED BY REFERENCE

Organization and standard or test method	Description
ANSI C12.20–2015, Electricity Meters 0.1, 0.2, And 0.5 Accuracy Classes, February 17, 2017.	Standard for measuring the flow of electrical power, including physical aspects of the meter as well as performance criteria.
API MPMS 14.1–2016, Manual of Petroleum Measurement Standards Chapter 14—Natural Gas Fluids Measurement Section 1—Collecting and Handling of Natural Gas Samples for Custody Transfer, 7th Edition, April 2016.	Standard describing how to collect, handle, and transfer gas samples for chemical analysis.
API MPMS 14.3.1–2012, Manual of Petroleum Measurement Standards Chapter 14—Natural Gas Fluids Measurement Section 3—Orifice Metering of Natural Gas and Other Related Hydrocarbon Fluids-Concentric, Square-edged Orifice Meters Part 1: General Equations and Uncertainty Guidelines, 4th Edition, September 2012.	Standard describing engineering equations, installation requirements, and uncertainty estimations of square-edged orifice meters in measuring the flow of natural gas and similar fluids.
API MPMS 14.3.2–2016, Manual of Petroleum Measurement Standards Chapter 14—Natural Gas Fluids Measurement Section 3—Orifice Metering of Natural Gas and Other Related Hydrocarbon Fluids-Concentric, Square-edged Orifice Meters Part 2: Specification and Installation Requirements, 5th Edition, March 2016.	Standard describing design and installation of square-edged orifice meters for measuring flow of natural gas and similar fluids.
API MPMS 14.3.3–2021, Manual of Petroleum Measurement Standards Chapter 14—Natural Gas Fluids Measurement Section 3—Orifice Metering of Natural Gas and Other Related Hydrocarbon Fluids-Concentric, Square-edged Orifice Meters Part 3: Natural Gas Applications, 4th Edition, November 2013.	Standard describing applications using square-edged orifice meters for measuring flow of natural gas and similar fluids.
API MPMS 14.3.4–2019, Manual of Petroleum Measurement Standards Chapter 14—Natural Gas Fluids Measurement Section 3—Orifice Metering of Natural Gas and Other Related Hydrocarbon Fluids-Concentric, Square-edged Orifice Meters Part 4—Background, Development, Implementation Procedure, and Example Calculations, 4th Edition, September 2019.	Standard describing the development of equations for coefficient of discharge, including a calculation procedure, for square-edged orifice meters measuring flow of natural gas and similar fluids.
API MPMS 14.12–2017, Manual of Petroleum Measurement Standards Chapter 14—Natural Gas Fluid Measurement Section 12—Measurement of Gas by Vortex Meters, 1st Edition, March 2017.	Standard describing the calculation of flow using gas vortex meters for measuring the flow of natural gas and similar fluids.
APHA 2540, Solids In: Standard Methods For the Examination of Water and Wastewater, approved 2015, revised 2020.	Standard describing how to measure the total solids, volatile solids, and other solid properties of wastewater sludge and similar substances.
ASTM D3588–98(2017)e1, Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, approved April 1, 2017.	Calculation protocol for aggregate properties of gaseous fuels from compositional measurements.
ASTM D4888–20, Standard Test Method for Water Vapor in Natural Gas Using Length-of-Stain Detector Tubes, approved December 15, 2020.	Standard specifying how to measure water vapor concentration in gaseous fuel samples

[406] U.S. EPA (2022). Estimation of Population Size and Demographic Characteristics among People Living Near Truck Routes in the Conterminous United States. Memorandum to Docket.EPA–HQ–OAR–2019–0055.

TABLE X.I1—STANDARDS AND TEST METHODS TO BE INCORPORATED BY REFERENCE—Continued

Organization and standard or test method	Description
ASTM D5504–20, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, approved November 1, 2020.	Standard specifying how to measure sulfur-containing compounds in a gaseous fuel sample.
ASTM D7164–21, On-line/At-line Heating Value Determination of Gaseous Fuels by Gas Chromatography, approved April 1, 2021.	Standard specifying how to use and maintain an on-line gas chromatogram for determining heating value of a gaseous fuel.
ASTM D8230–19, Standard Test Method for Measurement of Volatile Silicon-Containing Compounds in a Gaseous Fuel Sample Using Gas Chromatography with Spectroscopic Detection, approved June 1, 2019.	Standard specifying how to measure silicon-containing compounds in a gaseous fuel sample.

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

EPA believes that this action does not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations and/or indigenous peoples, as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). A summary of our approach for considering potential EJ concerns as a result of this action can be found in Sections I.B and IV.E, and our EJ analysis (including a discussion of this action's potential impacts on GHGs, air quality, water quality, and fuel and food prices) can be found in DRIA Chapter 9.

This proposed rule would reduce GHG emissions, which would benefit minority populations, low-income populations, and indigenous populations. The manner in which the market responds to the provisions in this proposed rule could also have non-GHG impacts. Replacing petroleum fuels with renewable fuels will also have localized impacts on water and air exposure for communities living near facilities that produce renewable fuel, gasoline, or diesel fuel. Replacing petroleum fuels with renewable fuels is projected to have marginal impacts on food and fuel prices. These price impacts may have disproportionate impacts on low-income populations who spend a larger proportion of their income on food and fuel.

XI. Statutory Authority

Statutory authority for this action comes from sections 114, 203–05, 208, 211, and 301 of the Clean Air Act, 42 U.S.C. 7414, 7522–24, 7542, 7545, and 7601.

List of Subjects

40 CFR Part 80

Environmental protection, Administrative practice and procedure, Air pollution control, Diesel fuel, Fuel additives, Gasoline, Imports, Incorporation by reference, Oil imports, Petroleum, Renewable fuel.

40 CFR Part 1090

Environmental protection, Administrative practice and procedure, Air pollution control, Diesel fuel, Fuel additives, Gasoline, Imports, Oil imports, Petroleum, Renewable fuel.

Michael S. Regan,

Administrator.

For the reasons set forth in the preamble, EPA proposes to amend 40 CFR parts 80 and 1090 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 A—General Provisions

■ 2. Revise § 80.2 to read as follows:

§ 80.2 Definitions.

The definitions of this section apply in this part unless otherwise specified. Note that many terms defined here are common terms that have specific meanings under this part.

A–RIN means a RIN verified during the interim period by a registered independent third-party auditor using a QAP that has been approved under § 80.1469(a) following the audit process specified in § 80.1472.

Actual peak capacity means 105% of the maximum annual volume of renewable fuels produced from a specific renewable fuel production facility on a calendar year basis.

(1) For facilities that commenced construction prior to December 19, 2007, the actual peak capacity is based on the last five calendar years prior to 2008, unless no such production exists, in which case actual peak capacity is based on any calendar year after startup during the first three years of operation.

(2) For facilities that commenced construction after December 19, 2007 and before January 1, 2010, that are fired with natural gas, biomass, or a combination thereof, the actual peak capacity is based on any calendar year after startup during the first three years of operation.

(3) For all other facilities not included above, the actual peak capacity is based on the last five calendar years prior to the year in which the owner or operator registers the facility under the provisions of § 80.1450, unless no such production exists, in which case actual peak capacity is based on any calendar year after startup during the first three years of operation.

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

Advanced biofuel means renewable fuel, other than ethanol derived from cornstarch, that has lifecycle greenhouse gas emissions that are at least 50 percent less than baseline lifecycle greenhouse gas emissions.

Agricultural digester means an anaerobic digester that processes only animal manure, crop residues, or separated yard waste with an adjusted cellulosic content of at least 75%. Each and every material processed in an agricultural digester must have an adjusted cellulosic content of at least 75%.

Algae grown photosynthetically are algae that are grown such that their energy and carbon are predominantly derived from photosynthesis.

Annual cover crop means an annual crop, planted as a rotation between primary planted crops, or between trees and vines in orchards and vineyards, typically to protect soil from erosion and to improve the soil between periods of regular crops. An annual cover crop has no existing market to which it can be sold except for its use as feedstock for the production of renewable fuel.

Approved pathway means a pathway listed in Table 1 to § 80.1426 or in a petition approved under § 80.1416 that is eligible to generate RINs of a particular D code.

Areas at risk of wildfire are those areas in the ''wildland-urban interface'',

where humans and their development meet or intermix with wildland fuel. Note that, for guidance, the SILVIS laboratory at the University of Wisconsin maintains a website that provides a detailed map of areas meeting this criteria at: *http://www.silvis.forest.wisc.edu/projects/US_WUI_2000.asp.* The SILVIS laboratory is located at 1630 Linden Drive, Madison, Wisconsin 53706 and can be contacted at (608) 263–4349.

Audited party means a party that pays for or receives services from an independent third party under this part.

B–RIN means a RIN verified during the interim period by a registered independent third-party auditor using a QAP that has been approved under § 80.1469(b) following the audit process specified in § 80.1472.

Baseline lifecycle greenhouse gas emissions means the average lifecycle greenhouse gas emissions for gasoline or diesel (whichever is being replaced by the renewable fuel) sold or distributed as transportation fuel in 2005.

Baseline volume means the permitted capacity or, if permitted capacity cannot be determined, the actual peak capacity or nameplate capacity as applicable pursuant to § 80.1450(b)(1)(v)(A) through (C), of a specific renewable fuel production facility on a calendar year basis.

Batch pathway means each combination of approved pathway, equivalence value as determined under § 80.1415, and verification status for which a facility is registered.

Biocrude means a liquid biointermediate that meets all the following requirements:

(1) It is produced at a biointermediate production facility using one or more of the following processes:

(i) A process identified in row M under Table 1 to § 80.1426.

(ii) A process identified in a pathway listed in a petition approved under § 80.1416 for the production of renewable fuel produced from biocrude.

(2) It is to be used to produce renewable fuel at a refinery as defined in 40 CFR 1090.80.

Biodiesel means a mono-alkyl ester that meets ASTM D6751 (incorporated by reference, see § 80.3).

Biodiesel distillation bottoms means the heavier product from distillation at a biodiesel production facility that does not meet the definition of biodiesel.

Biogas or *raw biogas* means a mixture of biomethane, inert gases, and impurities that is produced through the anaerobic digestion of renewable biomass prior to any treatment to remove inert gases and impurities or adding non-biogas components.

Biogas closed distribution system means the infrastructure contained between when biogas is produced, used to produce a biogas-derived renewable fuel, and when the biogas-derived renewable fuel is used as transportation fuel within a discrete location or series of locations that does not include placement of biogas or RNG on a natural gas commercial pipeline system.

Biogas closed distribution system RIN generator means any party that generates RINs for renewable CNG/LNG in a biogas closed distribution system.

Biogas-derived renewable fuel means renewable CNG/LNG, renewable electricity, or any other renewable fuel that is produced from biogas or RNG, including from biogas used as a biointermediate.

Biogas producer means any person who owns, leases, operates, controls, or supervises a biogas production facility.

Biogas production facility means any facility where biogas is produced from renewable biomass under an approved pathway.

Biogas used as a biointermediate means biogas that a renewable fuel producer uses to produce a renewable fuel other than renewable CNG/LNG or renewable electricity.

Biointermediate means any feedstock material that is intended for use to produce renewable fuel and meets all of the following requirements:

(1) It is produced from renewable biomass.

(2) It has not previously had RINs generated for it.

(3) It is produced at a facility registered with EPA that is different than the facility at which it is used as feedstock material to produce renewable fuel.

(4) It is produced from the feedstock material identified in an approved pathway, will be used to produce the renewable fuel listed in that approved pathway, and is produced and processed in accordance with the process(es) listed in that approved pathway.

(5) Is one of the following types of biointermediate:

(i) Biocrude.

(ii) Biodiesel distillate bottoms.

(iii) Biomass-based sugars.

(iv) Digestate.

(v) Free fatty acid (FFA) feedstock.

(vi) Glycerin.

(vii) Soapstock.

(viii) Undenatured ethanol.

(ix) Biogas used to make a renewable fuel other than renewable CNG/LNG or renewable electricity.

(6) It is not a feedstock material identified in an approved pathway that is used to produce the renewable fuel specified in that approved pathway.

Biointermediate import facility means any facility as defined in 40 CFR 1090.80 where a biointermediate is imported from outside the covered location into the covered location.

Biointermediate importer means any person who owns, leases, operates, controls, or supervises a biointermediate import facility.

Biointermediate producer means any person who owns, leases, operates, controls, or supervises a biointermediate production facility.

Biointermediate production facility means all of the activities and equipment associated with the production of a biointermediate starting from the point of delivery of feedstock material to the point of final storage of the end biointermediate product, which are located on one property, and are under the control of the same person (or persons under common control).

Biomass-based diesel means a renewable fuel that has lifecycle greenhouse gas emissions that are at least 50 percent less than baseline lifecycle greenhouse gas emissions and meets all of the requirements of paragraph (1) of this definition:

(1)(i) Is a transportation fuel, transportation fuel additive, heating oil, or jet fuel.

(ii) Meets the definition of either biodiesel or non-ester renewable diesel.

(iii) Is registered as a motor vehicle fuel or fuel additive under 40 CFR part 79, if the fuel or fuel additive is intended for use in a motor vehicle.

(2) Renewable fuel produced from renewable biomass that is co-processed with petroleum is not biomass-based diesel.

Biomass-based sugars means sugars (*e.g.,* dextrose, sucrose, etc.) extracted from renewable biomass under an approved pathway, other than through a form change specified in § 80.1460(k)(2).

Biomethane means methane produced from renewable biomass.

Business day has the meaning given in 40 CFR 1090.80.

Canola/Rapeseed oil means either of the following:

(1) *Canola oil* is oil from the plants *Brassica napus, Brassica rapa, Brassica juncea, Sinapis alba,* or *Sinapis arvensis,* and which typically contains less than 2 percent erucic acid in the component fatty acids obtained.

(2) *Rapeseed oil* is the oil obtained from the plants *Brassica napus, Brassica rapa,* or *Brassica juncea.*

Carrier means any distributor who transports or stores or causes the transportation or storage of gasoline or diesel fuel without taking title to or otherwise having any ownership of the gasoline or diesel fuel, and without

altering either the quality or quantity of the gasoline or diesel fuel.

Category 3 (C3) marine vessels, for the purposes of this part 80, are vessels that are propelled by engines meeting the definition of ''Category 3'' in 40 CFR 1042.901.

CBOB means gasoline blendstock that could become conventional gasoline solely upon the addition of oxygenate.

Cellulosic biofuel means renewable fuel derived from any cellulose, hemi-cellulose, or lignin that has lifecycle greenhouse gas emissions that are at least 60 percent less than the baseline lifecycle greenhouse gas emissions.

Cellulosic diesel is any renewable fuel which meets both the definitions of cellulosic biofuel and biomass-based diesel. Cellulosic diesel includes heating oil and jet fuel produced from cellulosic feedstocks.

Certified non-transportation 15 ppm distillate fuel or *certified NTDF* means distillate fuel that meets all the following:

(1) The fuel has been certified under 40 CFR 1090.1000 as meeting the ULSD standards in 40 CFR 1090.305.

(2) The fuel has been designated under 40 CFR 1090.1015 as certified NTDF.

(3) The fuel has also been designated under 40 CFR 1090.1015 as 15 ppm heating oil, 15 ppm ECA marine fuel, or other non-transportation fuel (*e.g.,* jet fuel, kerosene, or distillate global marine fuel).

(4) The fuel has not been designated under 40 CFR 1090.1015 as ULSD or 15 ppm MVNRLM diesel fuel.

(5) The PTD for the fuel meets the requirements in § 80.1453(e).

Charging efficiency means the average fraction of energy stored in an EV's or PHEV's battery relative to the energy obtained from the electricity distribution system.

Combined heat and power (CHP), also known as cogeneration, refers to industrial processes in which waste heat from the production of electricity is used for process energy in a biointermediate or renewable fuel production facility.

Conterminous electricity distribution system means the major and minor alternating current (AC) power grids that supply electricity to or within the covered location (excluding Hawaii).

Continuous measurement means the automated measurement of specified parameters of biogas, natural gas, or electricity as follows:

(1) For in-line GC meters, automated measurement must occur at least once every 15 minutes.

(2) For flow meters, automated measurement must occur at least once every 6 seconds.

(3) For all other meters, automated measurement must occur at least once every 2 seconds.

Contractual affiliate means one of the following:

(1) Two parties are contractual affiliates if they have an explicit or implicit agreement in place for one to purchase or hold RINs on behalf of the other or to deliver RINs to the other. This other party may or may not be registered under the RFS program.

(2) Two parties are contractual affiliates if one RIN-owning party purchases or holds RINs on behalf of the other. This other party may or may not be registered under the RFS program.

Control area means a geographic area in which only oxygenated gasoline under the oxygenated gasoline program may be sold or dispensed, with boundaries determined by Clean Air Act section 211(m) (42 U.S.C. 7545(m)).

Control period means the period during which oxygenated gasoline must be sold or dispensed in any control area, pursuant to Clean Air Act section 211(m)(2) (42 U.S.C. 7545(m)(2)).

Conventional gasoline or *CG* means any gasoline that has been certified under 40 CFR 1090.1000(b) and is not RFG.

Co-processed cellulosic diesel is any renewable fuel that meets the definition of cellulosic biofuel and meets all of the requirements of paragraph (1) of this definition:

(1)(i) Is a transportation fuel, transportation fuel additive, heating oil, or jet fuel.

(ii) Meets the definition of either biodiesel or non-ester renewable diesel.

(iii) Is registered as a motor vehicle fuel or fuel additive under 40 CFR part 79, if the fuel or fuel additive is intended for use in a motor vehicle.

(2) Co-processed cellulosic diesel includes all the following:

(i) Heating oil and jet fuel produced from cellulosic feedstocks.

(ii) Cellulosic biofuel produced from cellulosic feedstocks co-processed with petroleum.

Co-processed fuel or *co-processed intermediate* means a fuel or intermediate that was partially produced from renewable biomass by any of the following:

(1) The simultaneous processing of renewable biomass with non-renewable feedstock in the same unit.

(2) The use of heat or electricity that is not from renewable biomass and is converted to energy in the fuel or intermediate.

(3) The commingling of renewable fuel or biointermediate with non-renewable material and for which the volume of renewable fuel or biointermediate cannot be separately measured during the production process.

Corporate affiliate means one of the following:

(1) Two RIN-holding parties are corporate affiliates if one owns or controls ownership of more than 20 percent of the other.

(2) Two RIN-holding parties are corporate affiliates if one parent company owns or controls ownership of more than 20 percent of both.

Corporate affiliate group means a group of parties in which each party is a corporate affiliate to at least one other party in the group.

Corn oil extraction means the recovery of corn oil from the thin stillage and/or the distillers grains and solubles produced by a dry mill corn ethanol plant, most often by mechanical separation.

Corn oil fractionation means a process whereby seeds are divided in various components and oils are removed prior to fermentation for the production of ethanol.

Covered location means the contiguous 48 states, Hawaii, and any state or territory that has received an approval from EPA to opt-in to the RFS program under § 80.1443.

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.

Cropland is land used for production of crops for harvest and includes cultivated cropland, such as for row crops or close-grown crops, and non-cultivated cropland, such as for horticultural or aquatic crops.

Diesel fuel means any of the following:

(1) Any fuel sold in any State or Territory of the United States and suitable for use in diesel engines, and that is one of the following:

(i) A distillate fuel commonly or commercially known or sold as No. 1 diesel fuel or No. 2 diesel fuel.

(ii) A non-distillate fuel other than residual fuel with comparable physical and chemical properties (*e.g.,* biodiesel fuel).

(iii) A mixture of fuels meeting the criteria of paragraphs (1) and (2) of this definition.

(2) For purposes of subpart M of this part, any and all of the products specified at § 80.1407(e).

Digestate means the material that remains following the anaerobic digestion of renewable biomass in an anaerobic digester. Digestate must only contain the leftovers that were unable to be completely converted to biogas in an anaerobic digestor that is part of an EPA-accepted registration under § 80.1450.

Distillate fuel means diesel fuel and other petroleum fuels that can be used in engines that are designed for diesel fuel. For example, jet fuel, heating oil, kerosene, No. 4 fuel, DMX, DMA, DMB, and DMC are distillate fuels; and natural gas, LPG, gasoline, and residual fuel are not distillate fuels. Blends containing residual fuel may be distillate fuels.

Distillers corn oil means corn oil recovered at any point downstream of when a dry mill ethanol or butanol plant grinds the corn, provided that the corn starch is converted to ethanol or butanol, the recovered oil is unfit for human food use without further refining, and the distillers grains remaining after the dry mill and oil recovery processes are marketable as animal feed.

Distillers sorghum oil means grain sorghum oil recovered at any point downstream of when a dry mill ethanol or butanol plant grinds the grain sorghum, provided that the grain sorghum is converted to ethanol or butanol, the recovered oil is unfit for human food use without further refining, and the distillers grains remaining after the dry mill and oil recovery processes are marketable as animal feed.

Distributor means any person who transports or stores or causes the transportation or storage of gasoline or diesel fuel at any point between any gasoline or diesel fuel refinery or importer's facility and any retail outlet or wholesale purchaser-consumer's facility.

DX RIN means a RIN with a D code of X, where X is the D code of the renewable fuel as identified under § 80.1425(g), generated under § 80.1426, and submitted under § 80.1452. For example, a D6 RIN is a RIN with a D code of 6.

ECA marine fuel is diesel, distillate, or residual fuel that meets the criteria of paragraph (1) of this definition, but not the criteria of paragraph (2) of this definition.

(1) All diesel, distillate, or residual fuel used, intended for use, or made available for use in Category 3 marine vessels while the vessels are operating within an Emission Control Area (ECA), or an ECA associated area, is ECA marine fuel, unless it meets the criteria of paragraph (2) of this definition.

(2) ECA marine fuel does not include any of the following fuel:

(i) Fuel used by exempted or excluded vessels (such as exempted steamships), or fuel used by vessels allowed by the U.S. government pursuant to MARPOL Annex VI Regulation 3 or Regulation 4 to exceed the fuel sulfur limits while operating in an ECA or an ECA associated area (see 33 U.S.C. 1903).

(ii) Fuel that conforms fully to the requirements of this part for MVNRLM diesel fuel (including being designated as MVNRLM).

(iii) Fuel used, or made available for use, in any diesel engines not installed on a Category 3 marine vessel.

Ecologically sensitive forestland means forestland that meets either of the following criteria:

(1) An ecological community with a global or state ranking of critically imperiled, imperiled or rare pursuant to a State Natural Heritage Program. For examples of such ecological communities, see ''Listing of Forest Ecological Communities Pursuant to 40 CFR 80.1401; S1–S3 communities,'' which is number EPA–HQ–OAR–2005–0161–1034.1 in the public docket, and ''Listing of Forest Ecological Communities Pursuant to 40 CFR 80.1401; G1–G2 communities,'' which is number EPA–HQ–OAR–2005–0161–2906.1 in the public docket. This material is available for inspection at the EPA Docket Center, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave. NW, Washington, DC. The telephone number for the Air Docket is (202) 566–1742.

(2) Old growth or late successional, characterized by trees at least 200 years in age.

Electrical vehicle miles traveled (eVMT) means the average annual vehicle miles travelled for an EV or average annual miles traveled in the all-electric mode of a PHEV.

Electric generating unit (EGU) means a combustion unit that produces electricity.

Electric vehicle (EV) has the meaning given in 40 CFR 86.1803–01.

End of day means 7 a.m. Coordinated Universal Time (UTC).

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.

EPA Moderated Transaction System or *EMTS* means a closed, EPA moderated system that provides a mechanism for screening and tracking RINs under § 80.1452.

Existing agricultural land is cropland, pastureland, and land enrolled in the Conservation Reserve Program (administered by the U.S. Department of Agriculture's Farm Service Agency) that was cleared or cultivated prior to December 19, 2007, and that, on December 19, 2007, was:

(1) Nonforested; and

(2) Actively managed as agricultural land or fallow, as evidenced by records which must be traceable to the land in question, which must include one of the following:

(i) Records of sales of planted crops, crop residue, or livestock, or records of purchases for land treatments such as fertilizer, weed control, or seeding.

(ii) A written management plan for agricultural purposes.

(iii) Documented participation in an agricultural management program administered by a Federal, state, or local government agency.

(iv) Documented management in accordance with a certification program for agricultural products.

Exporter of renewable fuel means all buyers, sellers, and owners of the renewable fuel in any transaction that results in renewable fuel being transferred from a covered location to a destination outside of the covered locations.

Facility means all of the activities and equipment associated with the production of renewable fuel or a biointermediate starting from the point of delivery of feedstock material to the point of final storage of the end product, which are located on one property, and are under the control of the same person (or persons under common control).

Fallow means cropland, pastureland, or land enrolled in the Conservation Reserve Program (administered by the U.S. Department of Agriculture's Farm Service Agency) that is intentionally left idle to regenerate for future agricultural purposes with no seeding or planting, harvesting, mowing, or treatment during the fallow period.

Foreign biogas producer means any person who owns, leases, operates, controls, or supervises a biogas production facility outside of the United States.

Foreign ethanol producer means a foreign renewable fuel producer who produces ethanol for use in transportation fuel, heating oil, or jet fuel but who does not add ethanol denaturant to their product as specified in paragraph (2) of the definition of ''renewable fuel'' in this section.

Foreign renewable electricity generator means any person who owns, leases, operates, controls, or supervises a renewable electricity generation facility outside of the United States.

Foreign renewable fuel producer means a person from a foreign country or from an area outside the covered location who produces renewable fuel for use in transportation fuel, heating oil, or jet fuel for export to the covered location. Foreign ethanol producers are considered foreign renewable fuel producers.

Foreign RNG producer means any person who owns, leases, operates, controls, or supervises an RNG production facility outside of the United States.

Forestland is generally undeveloped land covering a minimum area of 1 acre upon which the primary vegetative species are trees, including land that formerly had such tree cover and that will be regenerated and tree plantations. Tree-covered areas in intensive agricultural crop production settings, such as fruit orchards, or tree-covered areas in urban settings, such as city parks, are not considered forestland.

Free fatty acid (FFA) feedstock means a biointermediate that is composed of at least 50 percent free fatty acids. FFA feedstock must not include any free fatty acids from the refining of crude palm oil.

Fuel for use in an ocean-going vessel means, for this subpart only:

(1) Any marine residual fuel (whether burned in ocean waters, Great Lakes, or other internal waters);

(2) Emission Control Area (ECA) marine fuel, pursuant to § 80.2 and 40 CFR 1090.80 (whether burned in ocean waters, Great Lakes, or other internal waters); and

(3) Any other fuel intended for use only in ocean-going vessels.

Gasoline means any of the following:

(1) Any fuel sold in the United States for use in motor vehicles and motor vehicle engines, and commonly or commercially known or sold as gasoline.

(2) For purposes of subpart M of this part, any and all of the products specified at § 80.1407(c).

Gasoline blendstock or *component* means any liquid compound that is blended with other liquid compounds to produce gasoline.

Gasoline blendstock for oxygenate blending or *BOB* has the meaning given in 40 CFR 1090.80.

Gasoline treated as blendstock or *GTAB* means imported gasoline that is excluded from an import facility's compliance calculations, but is treated as blendstock in a related refinery that includes the GTAB in its refinery compliance calculations.

Glycerin means a coproduct from the production of biodiesel that primarily contains glycerol.

Heating oil means any of the following:

(1) Any No. 1, No. 2, or non-petroleum diesel blend that is sold for use in furnaces, boilers, and similar applications and which is commonly or commercially known or sold as heating oil, fuel oil, and similar trade names, and that is not jet fuel, kerosene, or MVNRLM diesel fuel.

(2) Any fuel oil that is used to heat or cool interior spaces of homes or buildings to control ambient climate for human comfort. The fuel oil must be liquid at 60 degrees Fahrenheit and 1 atmosphere of pressure, and contain no more than 2.5% mass solids.

Importer means any person who imports transportation fuel or renewable fuel into the covered location from an area outside of the covered location.

Independent third-party auditor means a party meeting the requirements of § 80.1471(b) that conducts QAP audits and verifies RINs.

Interim period means the period between February 21, 2013 and December 31, 2014.

Jet fuel means any distillate fuel used, intended for use, or made available for use in aircraft.

Kerosene means any No. 1 distillate fuel commonly or commercially sold as kerosene.

LDV/T has the meaning given in 40 CFR 86.1803–01.

Light-duty truck has the meaning given in 40 CFR 86.1803–01.

Light-duty vehicle has the meaning given in 40 CFR 86.1803–01.

Liquefied petroleum gas or *LPG* means a liquid hydrocarbon fuel that is stored under pressure and is composed primarily of species that are gases at atmospheric conditions (temperature = 25 °C and pressure = 1 atm), excluding natural gas.

Locomotive engine means an engine used in a locomotive as defined under 40 CFR 92.2.

Marine engine has the meaning given in 40 CFR 1042.901.

Membrane separation means the process of dehydrating ethanol to fuel grade (>99.5% purity) using a hydrophilic membrane.

Model has the meaning given in 40 CFR 86.1803–01.

Model year has the meaning given in 40 CFR 86.1803–01.

Motor vehicle has the meaning given in Section 216(2) of the Clean Air Act (42 U.S.C. 7550(2)).

MVNRLM diesel fuel means any diesel fuel or other distillate fuel that is used, intended for use, or made available for use in motor vehicles or motor vehicle engines, or as a fuel in any nonroad diesel engines, including locomotive and marine diesel engines, except the following: Distillate fuel with a T90 at or above 700 °F that is used only in Category 2 and 3 marine engines is not MVNRLM diesel fuel, and ECA marine fuel is not MVNRLM diesel fuel (note that fuel that conforms to the requirements of MVNRLM diesel fuel is excluded from the definition of ''ECA marine fuel'' in this section without regard to its actual use). Use the distillation test method specified in 40 CFR 1065.1010 to determine the T90 of the fuel.

(1) Any diesel fuel that is sold for use in stationary engines that are required to meet the requirements of 40 CFR 1090.300, when such provisions are applicable to nonroad engines, is considered MVNRLM diesel fuel.

(2) [Reserved]

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 or E85 (as defined in 40 CFR 1090.80) through blending.

Natural gas means a fuel whose primary constituent is methane. Natural gas includes RNG.

Natural gas commercial pipeline system means one or more connected pipelines that transport natural gas that meets all the following:

(1) The natural gas originates from multiple parties.

(2) The natural gas meets specifications set by the pipeline owner or operator.

(3) The natural gas is delivered to multiple parties in the covered location.

Neat renewable fuel is a renewable fuel to which 1% or less of gasoline (as

defined in this section) or diesel fuel has been added.

Non-ester renewable diesel or *renewable diesel* means renewable fuel that is not a mono-alkyl ester and that is either:

(1) A fuel or fuel additive that meets the Grade No. 1–D or No. 2–D specification in ASTM D975 (incorporated by reference, see § 80.3) and can be used in an engine designed to operate on conventional diesel fuel; or

(2) A fuel or fuel additive that is registered under 40 CFR part 79 and can be used in an engine designed to operate using conventional diesel fuel.

Nonforested land means land that is not forestland.

Non-petroleum diesel means a diesel fuel that contains at least 80 percent mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats.

Non-qualifying fuel use means a use of renewable fuel in an application other than transportation fuel, heating oil, or jet fuel.

Non-renewable component means any material (or any portion thereof) blended into biogas or RNG that does not meet the definition of renewable biomass.

Non-renewable feedstock means a feedstock (or any portion thereof) that does not meet the definition of renewable biomass or biointermediate.

Non-RIN-generating foreign producer means a foreign renewable fuel producer that has been registered by EPA to produce renewable fuel for which RINs have not been generated.

Nonroad diesel engine means an engine that is designed to operate with diesel fuel that meets the definition of nonroad engine in 40 CFR 1068.30, including locomotive and marine diesel engines.

Nonroad vehicle has the meaning given in Section 216(11) of the Clean Air Act (42 U.S.C. 7550(11)).

Obligated party means any refiner that produces gasoline or diesel fuel within the covered location, or any importer that imports gasoline or diesel fuel into the covered location, during a compliance period. A party that simply blends renewable fuel into gasoline or diesel fuel, as specified in § 80.1407(c) or (e), is not an obligated party.

Ocean-going vessel means vessels that are primarily (*i.e.,* ≥75%) propelled by engines meeting the definition of ''Category 3'' in 40 CFR 1042.901.

Original equipment manufacturer (OEM) has the meaning given in 40 CFR 86.1803–01.

Oxygenate means any substance which, when added to gasoline, increases the oxygen content of that gasoline. Lawful use of any of the substances or any combination of these substances requires that they be ''substantially similar'' under section 211(f)(1) of the Clean Air Act (42 U.S.C. 7545(f)(1)), or be permitted under a waiver granted by EPA under the authority of section 211(f)(4) of the Clean Air Act (42 U.S.C. 7545(f)(4)).

Oxygenated gasoline means gasoline which contains a measurable amount of oxygenate.

Pastureland is land managed for the production of select indigenous or introduced forage plants for livestock grazing or hay production, and to prevent succession to other plant types.

Permitted capacity means 105% of the maximum permissible volume output of renewable fuel that is allowed under operating conditions specified in the most restrictive of all applicable preconstruction, construction and operating permits issued by regulatory authorities (including local, regional, state or a foreign equivalent of a state, and federal permits, or permits issued by foreign governmental agencies) that govern the construction and/or operation of the renewable fuel facility, based on an annual volume output on a calendar year basis. If the permit specifies maximum rated volume output on an hourly basis, then annual volume output is determined by multiplying the hourly output by 8,322 hours per year.

(1) For facilities that commenced construction prior to December 19, 2007, the permitted capacity is based on permits issued or revised no later than December 19, 2007.

(2) For facilities that commenced construction after December 19, 2007 and before January 1, 2010 that are fired with natural gas, biomass, or a combination thereof, the permitted capacity is based on permits issued or revised no later than December 31, 2009.

(3) For facilities other than those specified in paragraphs (1) and (2) of this definition, permitted capacity is based on the most recent applicable permits.

Pipeline interconnect means the physical injection or withdrawal point where RNG is injected or withdrawn into or from the natural gas commercial pipeline system.

Planted crops are all annual or perennial agricultural crops from existing agricultural land that may be used as feedstocks for renewable fuel, such as grains, oilseeds, sugarcane, switchgrass, prairie grass, duckweed, and other species (but not including algae species or planted trees), providing that they were intentionally applied by humans to the ground, a growth medium, a pond or tank, either by direct application as seed or plant, or through intentional natural seeding or vegetative propagation by mature plants introduced or left undisturbed for that purpose.

Planted trees are trees harvested from a tree plantation.

Plug-in hybrid electric vehicle (PHEV) has the meaning given in 40 CFR 86.1803–01.

Pre-commercial thinnings are trees, including unhealthy or diseased trees, removed to reduce stocking to concentrate growth on more desirable, healthy trees, or other vegetative material that is removed to promote tree growth.

Produced from renewable biomass means that the energy in the finished fuel or biointermediate comes from renewable biomass.

Professional liability insurance means insurance coverage for liability arising out of the performance of professional or business duties related to a specific occupation, with coverage being tailored to the needs of the specific occupation. Examples include abstracters, accountants, insurance adjusters, architects, engineers, insurance agents and brokers, lawyers, real estate agents, stockbrokers, and veterinarians. For purposes of this definition, professional liability insurance does not include directors and officers liability insurance.

Q–RIN means a RIN verified by a registered independent third-party auditor using a QAP that has been approved under § 80.1469(c) following the audit process specified in § 80.1472.

Quality assurance audit means an audit of a renewable fuel production facility or biointermediate production facility conducted by an independent third-party auditor in accordance with a QAP that meets the requirements of §§ 80.1469, 80.1472, and 80.1477.

Quality assurance plan or *QAP* means the list of elements that an independent third-party auditor will check to verify that the RINs generated by a renewable fuel producer or importer are valid or to verify the appropriate production of a biointermediate. A QAP includes both general and pathway specific elements.

Raw starch hydrolysis means the process of hydrolyzing corn starch into simple sugars at low temperatures, generally not exceeding 100 °F (38 °C), using enzymes designed to be effective under these conditions.

Refiner means any person who owns, leases, operates, controls, or supervises a refinery.

Refinery means any facility, including but not limited to, a plant, tanker truck, or vessel where gasoline or diesel fuel

is produced, including any facility at which blendstocks are combined to produce gasoline or diesel fuel, or at which blendstock is added to gasoline or diesel fuel.

Reformulated gasoline or *RFG* means any gasoline whose formulation has been certified under 40 CFR 1090.1000(b), and which meets each of the standards and requirements prescribed under 40 CFR 1090.220.

Reformulated gasoline blendstock for oxygenate blending or *RBOB* means a petroleum product that, when blended with a specified type and percentage of oxygenate, meets the definition of reformulated gasoline, and to which the specified type and percentage of oxygenate is added other than by the refiner or importer of the RBOB at the refinery or import facility where the RBOB is produced or imported.

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.

Renewable compressed natural gas or *renewable CNG* means biogas or RNG that is compressed for use as transportation fuel and meets the definition of renewable fuel.

Renewable electricity means electricity that meets the definition of renewable fuel and is covered under a RIN generation agreement under § 80.135.

Renewable electricity data mean the information that describes the monthly renewable electricity generation for a renewable electricity generation facility covered by a RIN generation agreement.

Renewable electricity generation facility means any facility where renewable electricity is produced.

Renewable electricity generator means any person who owns, leases, operates, controls, or supervises a renewable electricity generation facility.

Renewable electricity RIN generator (RERG) means any OEM of electric and plug-in hybrid electric LDV/Ts registered to generate RINs for renewable electricity.

Renewable fuel means a fuel that meets all the following requirements:

(1)(i) Fuel that is produced either from renewable biomass or from a biointermediate produced from renewable biomass.

(ii) Fuel that is used in the covered location to replace or reduce the quantity of fossil fuel present in a transportation fuel, heating oil, or jet fuel.

(iii) Has lifecycle greenhouse gas emissions that are at least 20 percent less than baseline lifecycle greenhouse gas emissions, unless the fuel is exempt from this requirement pursuant to § 80.1403.

(2) Ethanol covered by this definition must be denatured using an ethanol denaturant as required in 27 CFR parts 19 through 21. Any volume of ethanol denaturant added to the undenatured ethanol by a producer or importer in excess of 2 volume percent must not be included in the volume of ethanol for purposes of determining compliance with the requirements of this subpart.

Renewable gasoline means renewable fuel produced from renewable biomass that is composed of only hydrocarbons and that meets the definition of gasoline.

Renewable gasoline blendstock means a blendstock produced from renewable biomass that is composed of only hydrocarbons and which meets the definition of gasoline blendstock in § 80.2.

Renewable Identification Number (RIN) is a unique number generated to represent a volume of renewable fuel pursuant to §§ 80.1425 and 80.1426.

(1) *Gallon-RIN* is a RIN that represents an individual gallon of renewable fuel used for compliance purposes pursuant to § 80.1427 to satisfy a renewable volume obligation.

(2) *Batch-RIN* is a RIN that represents multiple gallon-RINs.

Renewable liquefied natural gas or *renewable LNG* means biogas or RNG that goes through the process of liquefaction in which it is cooled below its boiling point for use as transportation fuel, and which meets the definition of renewable fuel.

Renewable natural gas (RNG) means a product that meets all the following requirements:

(1) It is produced from biogas.

(2) It contains at least 90 percent biomethane content.

(3) It meets the specifications for the natural gas commercial pipeline system submitted and accepted by EPA under § 80.145(f)(6).

(4) It is used or will be used in the covered location as transportation fuel or to produce a renewable fuel.

RERG's fleet means the RERG's electric and plug-in hybrid electric LDV/T fleet.

Residual fuel means a petroleum fuel that can only be used in diesel engines if it is preheated before injection. For example, No. 5 fuels, No. 6 fuels, and RM grade marine fuels are residual fuels. Note: Residual fuels do not necessarily require heating for storage or pumping.

Responsible corporate officer (RCO) has the meaning given in 40 CFR 1090.80.

Retail outlet means any establishment at which gasoline, diesel fuel, natural gas or liquefied petroleum gas is sold or offered for sale for use in motor vehicles or nonroad engines, including locomotive or marine engines.

Retailer means any person who owns, leases, operates, controls, or supervises a retail outlet.

RIN-generating foreign producer means a foreign renewable fuel producer that has been registered by EPA to generate RINs for renewable fuel it produces.

RIN generation agreement means the exclusive, bilateral, contracted ability of a RERG to generate RINs for all of the renewable electricity generated at a renewable electricity generation facility.

RIN generator means any party allowed to generate RINs under this part.

RIN-less RNG means RNG produced by a foreign RNG producer and for which RINs were not generated by the foreign RNG producer.

RNG importer means any person who imports RNG into the covered location and generates RINs for the RNG as specified in § 80.140.

RNG producer means any person who owns, leases, operates, controls, or supervises an RNG production facility.

RNG production facility means a location where biogas is upgraded to RNG.

RNG RIN separator means any person registered to separate RINs for RNG under § 80.140(d).

RNG used as a feedstock means any RNG used to produce renewable fuel (including renewable electricity) under § 80.140.

Separated food waste means a feedstock stream consisting of food waste kept separate since generation from other waste materials, and which includes food and beverage production waste and post-consumer food and beverage waste.

Separated municipal solid waste (MSW) means material remaining after separation actions have been taken to remove recyclable paper, cardboard, plastics, rubber, textiles, metals, and glass from municipal solid waste, and which is composed of both cellulosic and non-cellulosic materials.

Separated yard waste means a feedstock stream consisting of yard waste kept separate since generation from other waste materials.

Slash is the residue, including treetops, branches, and bark, left on the ground after logging or accumulating as a result of a storm, fire, delimbing, or other similar disturbance.

Small refinery 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.

Soapstock means an emulsion, or the oil obtained from separation of that emulsion, produced by washing oils listed as a feedstock in an approved pathway with water.

Transportation fuel means fuel for use in motor vehicles, motor vehicle engines, nonroad vehicles, or nonroad engines (except fuel for use in ocean-going vessels).

Treated biogas means biogas that has undergone treatment to remove inert gases or impurities and is used in a biogas closed distribution system.

Tree plantation is a stand of no less than 1 acre composed primarily of trees established by hand- or machine-planting of a seed or sapling, or by coppice growth from the stump or root of a tree that was hand- or machine-planted. Tree plantations must have been cleared prior to December 19, 2007 and must have been actively managed on December 19, 2007, as evidenced by records which must be traceable to the land in question, which must include:

(1) Sales records for planted trees or tree residue together with other written documentation connecting the land in question to these purchases;

(2) Purchasing records for seeds, seedlings, or other nursery stock together with other written documentation connecting the land in question to these purchases;

(3) A written management plan for silvicultural purposes;

(4) Documentation of participation in a silvicultural program sponsored by a Federal, state or local government agency;

(5) Documentation of land management in accordance with an agricultural or silvicultural product certification program;

(6) An agreement for land management consultation with a professional forester that identifies the land in question; or

(7) Evidence of the existence and ongoing maintenance of a road system or other physical infrastructure designed and maintained for logging use, together with one of the above-mentioned documents.

Tree residue is slash and any woody residue generated during the processing of planted trees from tree plantations for use in lumber, paper, furniture or other applications, provided that such woody residue is not mixed with similar residue from trees that do not originate in tree plantations.

Undenatured ethanol means a liquid that meets one of the definitions in paragraph (1) of this definition:

(1)(i) Ethanol that has not been denatured as required in 27 CFR parts 19 through 21.

(ii) Specially denatured alcohol as defined in 27 CFR 21.11.

(2) Undenatured ethanol is not renewable fuel.

United States has the meaning given in 40 CFR 1090.80.

Vehicle fuel economy means the average kWh consumed per mile by an EV or PHEV when operating in all electric mode.

Verification status means a description of whether biogas, renewable electricity, or a RIN has been verified under an EPA-approved quality assurance plan.

Verified RIN means a RIN generated by a renewable fuel producer that was subject to a QAP audit executed by an independent third-party auditor, and determined by the independent third-party auditor to be valid. Verified RINs includes A–RINs, B–RINs, and Q–RINs.

Wholesale purchaser-consumer means any person that is an ultimate consumer of gasoline, diesel fuel, natural gas, or liquefied petroleum gas and which purchases or obtains gasoline, diesel fuel, natural gas or liquefied petroleum gas from a supplier for use in motor vehicles or nonroad engines, including locomotive or marine engines and, in the case of gasoline, diesel fuel, or liquefied petroleum gas, receives delivery of that product into a storage tank of at least 550-gallon capacity substantially under the control of that person.

■ 3. Revise § 80.3 to read as follows:

§ 80.3 Incorporation by reference.

Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved incorporation by reference (IBR) material is available for inspection at U.S. EPA and at the National Archives and Records Administration (NARA). Contact U.S. EPA at: U.S. EPA, Air and Radiation Docket and Information Center, WJC West Building, Room 3334, 1301 Constitution Ave. NW, Washington, DC 20460; (202) 566–1742. For information on the availability of this material at NARA, visit: *www.archives.gov/federal-register/cfr/ibr-locations.html* or email *fr.inspection@nara.gov.* The material may be obtained from the following sources:

(a) American National Standards Institute (ANSI), 25 West 43rd Street, 4th Floor, New York, NY 10036; (212) 642–4980; *www.ansi.org.*

(1) ANSI C12.20–2015, Electricity Meters 0.1, 0.2, And 0.5 Accuracy Classes, February 17, 2017 (ANSI C12.20); IBR approved for § 80.165(c).

(2) [Reserved]

(b) American Petroleum Institute (API), 200 Massachusetts Avenue NW, Suite 1100, Washington, DC 20001–5571; (202) 682–8000; *www.api.org.*

(1) API MPMS 14.1–2016, Manual of Petroleum Measurement Standards Chapter 14—Natural Gas Fluids Measurement Section 1—Collecting and Handling of Natural Gas Samples for Custody Transfer, 7th Edition, April 2016 (''API MPMS 14.1''); IBR approved for § 80.165(b).

(2) API MPMS 14.3.1–2012, Manual of Petroleum Measurement Standards Chapter 14—Natural Gas Fluids Measurement Section 3—Orifice Metering of Natural Gas and Other Related Hydrocarbon Fluids-Concentric, Square-edged Orifice Meters Part 1: General Equations and Uncertainty Guidelines, 4th Edition, September 2012 (''API MPMS 14.3.1''); IBR approved for § 80.165(a).

(3) API MPMS 14.3.2–2016, Manual of Petroleum Measurement Standards Chapter 14—Natural Gas Fluids Measurement Section 3—Orifice Metering of Natural Gas and Other Related Hydrocarbon Fluids-Concentric, Square-edged Orifice Meters Part 2: Specification and Installation Requirements, 5th Edition, March 2016 (''API MPMS 14.3.2''); IBR approved for § 80.165(a).

(4) API MPMS 14.3.3–2021, Manual of Petroleum Measurement Standards Chapter 14—Natural Gas Fluids Measurement Section 3—Orifice Metering of Natural Gas and Other Related Hydrocarbon Fluids-Concentric, Square-edged Orifice Meters Part 3: Natural Gas Applications, 4th Edition, November 2013 (''API MPMS 14.3.3''); IBR approved for § 80.165(a).

(5) API MPMS 14.3.4–2019, Manual of Petroleum Measurement Standards Chapter 14—Natural Gas Fluids Measurement Section 3—Orifice Metering of Natural Gas and Other Related Hydrocarbon Fluids-Concentric, Square-edged Orifice Meters Part 4—Background, Development, Implementation Procedure, and Example Calculations, 4th Edition, September 2019 (''API MPMS 14.3.4''); IBR approved for § 80.165(a).

(6) API MPMS 14.12–2017, Manual of Petroleum Measurement Standards Chapter 14—Natural Gas Fluid Measurement Section 12—Measurement of Gas by Vortex Meters, 1st Edition, March 2017 (''API MPMS 14.12''); IBR approved for § 80.165(a).

(c) American Public Health Association (APHA), 1015 15th Street NW, Washington, DC 20005; (202) 777–2742; *https://www.standardmethods.org.*

(1) SM 2540, Solids In: Standard Methods For the Examination of Water and Wastewater, approved June 10, 2020 (''SM 2540''); IBR approved for § 80.165(d).

(2) [Reserved]

(d) ASTM International (ASTM), 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428–2959; (877) 909–2786; *www.astm.org.*

(1) ASTM D975–21, Standard Specification for Diesel Fuel, approved August 1, 2021 (''ASTM D975''); IBR approved for §§ 80.2; 80.1426(f); 80.1450(b); 80.1451(b); 80.1454(l).

(2) ASTM D1250–19e1, Standard Guide for the Use of the Joint API and ASTM Adjunct for Temperature and Pressure Volume Correction Factors for Generalized Crude Oils, Refined Products, and Lubricating Oils: API MPMS Chapter 11.1, approved May 1, 2019 (''ASTM D1250''); IBR approved for § 80.1426(f).

(3) ASTM D3588–98(2017)e1, Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density of Gaseous Fuels, approved April 1, 2017 (''ASTM D3588''); IBR approved for § 80.165(b).

(4) ASTM D4442–20, Standard Test Methods for Direct Moisture Content Measurement of Wood and Wood-Based Materials, approved March 1, 2020 (''ASTM D4442''); IBR approved for § 80.1426(f).

(5) ASTM D4444–13 (Reapproved 2018), Standard Test Method for Laboratory Standardization and Calibration of Hand-Held Moisture Meters, reapproved July 1, 2018 (''ASTM D4444''); IBR approved for § 80.1426(f).

(6) ASTM D4888–20, Standard Test Method for Water Vapor in Natural Gas Using Length-of-Stain Detector Tubes, approved December 15, 2020 (''ASTM D4888''); IBR approved for § 80.165(b).

(7) ASTM D5504–20, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, approved November 1, 2020 (''ASTM D5504''); IBR approved for § 80.165(b).

(8) ASTM D6751–20a, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels, approved August 1, 2020 (''ASTM D6751''); IBR approved for § 80.2.

(9) ASTM D6866–22, Standard Test Methods for Determining the Biobased Content of Solid, Liquid, and Gaseous Samples Using Radiocarbon Analysis, approved March 15, 2022 (''ASTM D6866''); IBR approved for §§ 80.165(b); 80.1426(f); 80.1430(e).

(10) ASTM D7164–21, On-line/At-line Heating Value Determination of Gaseous Fuels by Gas Chromatography, approved April 1, 2021 (''ASTM D7164''); IBR approved for § 80.165(a).

(11) ASTM D8230–19, Standard Test Method for Measurement of Volatile Silicon-Containing Compounds in a Gaseous Fuel Sample Using Gas Chromatography with Spectroscopic Detection, approved June 1, 2019 (''ASTM D8230''); IBR approved for § 80.165(b).

(12) ASTM E711–87 (R2004), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter, reapproved 2004 (''ASTM E711''); IBR approved for § 80.1426(f).

(13) ASTM E870–82 (Reapproved 2019), Standard Test Methods for Analysis of Wood Fuels, reapproved April 1, 2019 (''ASTM E870''); IBR approved for § 80.1426(f).

§ 80.4 [Amended]

■ 4. Amend § 80.4 by removing the text ''The Administrator or his authorized representative'' and adding, in its place, the text ''EPA''.

■ 5. Amend § 80.7 by:

■ a. Revising paragraph (a) introductory text;

■ b. In paragraph (b), removing the text ''the Administrator, the Regional Administrator, or their delegates'' and adding, in its place, the text ''EPA''; and

■ c. Revising the first sentence of paragraph (c).

The revisions read as follows:

§ 80.7 Requests for information.

(a) When EPA has reason to believe that a violation of section 211(c) or section 211(n) of the Clean Air Act and the regulations thereunder has occurred, EPA may require any refiner, distributor, wholesale purchaser-consumer, or retailer to report the following information regarding receipt, transfer, delivery, or sale of gasoline represented to be unleaded gasoline and to allow the reproduction of such information at all reasonable times.

* * * * *

(c) Any refiner, distributor, wholesale purchaser-consumer, retailer, or importer must provide such other information as EPA may reasonably require to enable the Agency to determine whether such refiner, distributor, wholesale purchaser-consumer, retailer, or importer has acted or is acting in compliance with sections 211(c) and 211(n) of the Clean Air Act and the regulations thereunder and must, upon request of EPA, produce and allow reproduction of any relevant records at all reasonable times. * * *

■ 6. Revise § 80.9 to read as follows:

§ 80.9 Rounding.

(a) Test results and calculated values reported to EPA under this part must be rounded according to 40 CFR 1090.50(a) through (d).

(b) Calculated values under this part may only be rounded when reported to EPA.

(c) Reported values under this part must be submitted using forms and procedures specified by EPA.

Subpart B—Controls and Prohibitions

§ 80.24 [Amended]

■ 7. Amend § 80.24 by, in paragraph (b), removing the text ''the Administrator'' and adding, in its place, the text ''EPA''.

■ 8. Add subpart E, consisting of §§ 80.100 through 80.195, to read as follows:

Subpart E—Biogas-Derived Renewable Fuel

§ 80.100 Scope and application.

(a) *Applicability.* (1) The provisions of this subpart E apply to all biogas, renewable electricity, and RNG used to produce a biogas-derived renewable fuel, and RINs generated for a biogas-derived renewable fuel.

(2) This subpart also specifies requirements for any person that engages in activities associated with the production, distribution, transfer, or use of biogas, renewable electricity, RNG, biogas-derived renewable fuel, and RINs generated for a biogas-derived renewable fuel under the RFS program.

(b) *Relationship to other fuels regulations.* (1) The provisions of subpart M of this part also apply to the parties and products regulated under this subpart E.

(2) The provisions of 40 CFR part 1090 include provisions that may apply to the parties and products regulated under this subpart E.

(3) Parties and products subject to this subpart E may need to register a fuel or fuel additive under 40 CFR part 79.

(c) *Geographic scope.* (1) RERGs must only generate RINs for renewable electricity used in vehicles in the RERG's fleet that are registered in a state in the covered location (excluding Hawaii).

(2) Only renewable electricity that is used as transportation fuel in the covered location (excluding Hawaii) is eligible for the generation of RINs for renewable electricity. Renewable electricity is deemed to be eligible for use as transportation fuel in the covered location if the renewable electricity is introduced into the conterminous electricity distribution system that serves the covered location (excluding Hawaii).

(3) RINs must only be generated for biogas-derived renewable fuel used in the covered location.

(d) *Implementation dates.* (1) *General.* The provisions of this subpart E apply beginning January 1, 2024, unless otherwise specified. Parties required to register under § 80.145 may register with EPA beginning on the effective date of the final rule.

(2) *Generation of RINs for renewable electricity.* RERGs must only generate RINs for renewable electricity produced from biogas or RNG produced on or after January 1, 2024.

(3) *Generation of RINs for RNG.* RNG producers must generate RINs for RNG produced on or after January 1, 2024, as specified in § 80.140.

(4) *Generation of RINs for renewable CNG/LNG.* (i) For biogas or RNG produced on or before December 31, 2023, biogas closed distribution system RIN generators must generate RINs for renewable CNG/LNG as specified in § 80.1426(f)(10) and (11), as applicable.

(ii) For biogas produced on or after January 1, 2024, biogas closed distribution system RIN generators must generate RINs for renewable CNG/LNG as specified in § 80.142.

(5) *Generation of RINs for renewable fuel produced from biogas used as a biointermediate.* Renewable fuel producers must only generate RINs for renewable fuel produced from biogas used as a biointermediate produced on or after January 1, 2024.

§ 80.105 Biogas producers.

(a) *General requirements.* (1) Any biogas producer that produces biogas for use to produce RNG, renewable electricity, or a biogas-derived renewable fuel, or that produces biogas used as a biointermediate, must comply with the requirements of this section.

(2) The biogas producer must also comply with all other applicable requirements of this part and 40 CFR part 1090.

(3) If the biogas producer meets the definition of more than one type of regulated party under this part or 40 CFR part 1090, the biogas producer must comply with the requirements applicable to each of those types of regulated parties.

(4) The biogas producer must comply with all applicable requirements of this part, regardless of whether the requirements are identified in this section.

(5) The transfer and batch segregation limits specified in § 80.1476(g) do not apply.

(b) *Registration.* The biogas producer must register with EPA under §§ 80.145, 80.1450, and 40 CFR part 1090, subpart I, as applicable.

(c) *Reporting.* The biogas producer must submit reports to EPA under §§ 80.150 and 80.1451, as applicable.

(d) *Recordkeeping.* The biogas producer must create and maintain records under §§ 80.155 and 80.1454.

(e) *PTDs.* On each occasion when the biogas producer transfers title of any biogas, the transferor must provide to the transferee PTDs under § 80.160.

(f) *Sampling, testing, and measurement.* (1)(i) A biogas producer must continuously measure the volume of biogas, in Btu, prior to transferring biogas outside of the biogas production facility.

(ii) A biogas producer must continuously measure the volume of biogas, in Btu, from each digester subject to § 80.1426(f)(3)(vi) prior to mixing with any other biogas.

(iii) A biogas producer with separate digesters at a biogas production facility that produces biogas qualified to be used to produce biogas-derived renewable fuel eligible to generate RINs multiple D codes must continuously measure the volume of biogas, in Btu, at all the following:

(A) At the output of each digester.

(B) As each mixture of biogas from multiple digesters leaves the facility.

(iv) A biogas producer must measure total solids and volatile solids for a representative sample of each cellulosic feedstock for each digester subject to § 80.1426(f)(3)(vi) at least once per calendar month.

(2) All sampling, testing, and measurements must be done in accordance with § 80.165.

(g) *Foreign biogas producer requirements.* A foreign biogas producer must meet all requirements that apply to a biogas producer under this part, as well as the additional requirements for foreign biogas producers specified in § 80.170.

(h) *Attest engagements.* The biogas producer must submit annual attest engagement reports to EPA under §§ 80.175 and 80.1464 using procedures specified in 40 CFR 1090.1800 and 1090.1805.

(i) *QAP.* Prior to the generation of Q–RINs for a biogas-derived renewable fuel, the biogas producer must meet all applicable requirements specified in § 80.180.

(j) *Batches.* (1) A batch of biogas is the total volume of biogas produced at a biogas production facility under a single batch pathway for the calendar month, in Btu, as determined under paragraph (j)(3) of this section.

(2) The biogas producer must assign a number (the ''batch number'') to each batch of biogas consisting of their EPA-issued company registration number, the EPA-issued facility registration number, the last two digits of the calendar year in which the batch was produced, and a unique number for the batch, beginning with the number one for the first batch produced each calendar year and each subsequent batch during the calendar year being assigned the next sequential number (*e.g.,* 4321–54321–23–000001, 4321–54321–23–000002, etc.).

(3)(i) The batch volume of biogas for each batch pathway must be calculated as follows:

$$V_{BG,p} = V_{BG} * \frac{FE_p}{FE_{total}}$$

Where:

$V_{BG,p}$ = The batch volume of biogas for batch pathway p, in Btu.

V_{BG} = The total volume of biogas produced, in Btu, per paragraph (j)(3)(ii) of this section.

FE_p = Sum of feedstock energies from all feedstocks used to produce biogas under batch pathway p, in Btu, per § 80.1426(f)(3)(vi).

FE_{total} = Sum of feedstock energies from all feedstocks used to produce biogas, in Btu, per § 80.1426(f)(3)(vi).

(ii) The total volume of biogas produced must be calculated as follows:

$V_{BG} = V_G * R$

Where:

V_{BG} = The total volume of biogas produced, in Btu.

V_G = The total volume of gas produced at the biogas production facility for the calendar month, in Btu, as measured under § 80.165.

R = The renewable fraction of the gas produced at the biogas production facility for the calendar month. For gas produced only from renewable feedstocks, R is equal to 1. For gas produced from both renewable and non-renewable feedstocks, R must be measured by a carbon-14 dating test method, per § 80.1426(f)(9).

(k) *Limitations.* (1) For each biogas production facility, the biogas producer must only supply biogas for only one of the following uses:

(i) Production of renewable CNG/LNG via a biogas closed distribution system.

(ii) Production of renewable electricity via a biogas closed distribution system.

(iii) As a biointermediate via a biogas closed distribution system.

(iv) Production of RNG.

(2) For each biogas production facility that produces biogas in a biogas closed distribution system used to produce renewable electricity:

(i) The biogas producer must only supply biogas to a single renewable electricity generation facility.

(ii) The biogas producer must not inject biogas into a natural gas commercial pipeline system.

(3) For each biogas production facility producing biogas for use as a biointermediate in a biogas closed distribution system, the biogas producer must only supply biogas to a single renewable fuel production facility.

(4) If the biogas producer operates a municipal wastewater treatment facility digester, the biogas producer must not introduce any feedstocks into the digester that do not contain at least 75% average adjusted cellulosic content.

§ 80.110 Renewable electricity generators.

(a) *General requirements.* (1) Any renewable electricity generator that produces renewable electricity must comply with the requirements of this section.

(2) The renewable electricity generator must also comply with all other applicable requirements of this part and 40 CFR part 1090.

(3) If the renewable electricity generator meets the definition of more than one type of regulated party under this part or 40 CFR part 1090, the renewable electricity generator must comply with the requirements applicable to each of those types of regulated parties.

(4) The renewable electricity generator must comply with all applicable requirements of this part, regardless of whether the requirements are identified in this section.

(b) *Registration.* The renewable electricity generator must register with EPA under §§ 80.145, 80.1450, and 40 CFR part 1090, subpart I, as applicable.

(c) *Reporting.* The renewable electricity generator must submit reports to EPA under § 80.150.

(d) *Recordkeeping.* The renewable electricity generator must create and maintain records under § 80.155.

(e) *PTDs.* On each occasion when the renewable electricity generator transfers renewable electricity generation data to a RERG, the transferor must provide to the transferee PTDs under § 80.160.

(f) *Measurement.* (1)(i) A renewable electricity generator must continuously measure the volume of natural gas, in Btu, withdrawn from the natural gas commercial pipeline system.

(ii) A renewable electricity generator must continuously measure the volume of electricity, in kWh, produced at the renewable electricity generation facility.

(2) All measurements must be done in accordance with § 80.165.

(g) *Foreign renewable electricity generator requirements.* A foreign renewable electricity generator must meet all requirements that apply to a renewable electricity generator under this part, as well as the additional requirements for foreign renewable electricity generators specified in § 80.170.

(h) *Attest engagements.* The renewable electricity generator must submit annual attest engagement reports to EPA under § 80.175 using procedures specified in 40 CFR 1090.1800 and 1090.1805.

(i) *QAP.* Prior to the generation of Q–RINs for renewable electricity, the renewable electricity generator must meet all applicable requirements specified in § 80.180.

(j) *Retirement of RINs for RNG.* A renewable electricity generator that produces renewable electricity from RNG must retire RINs for RNG as specified in § 80.140.

(k) *Batches.* (1) A batch of renewable electricity is the total volume of renewable electricity produced at a renewable electricity generation facility under a single batch pathway for the calendar month, in kWh, as determined under paragraph (k)(3) of this section.

(2) The renewable electricity generator must assign a number (the ''batch number'') to each batch of renewable electricity consisting of their EPA-issued company registration number, the EPA-issued facility registration number, the last two digits of the calendar year in which the batch was produced, and a unique number for the batch, beginning with the number one for the first batch produced each calendar year and each subsequent batch during the calendar year being assigned the next sequential number (*e.g.,* 4321–54321–23–000001, 4321–54321–23–000002, etc.).

(3) The batch volume of renewable electricity for each batch pathway must be calculated as follows:

(i) For renewable electricity produced from biogas:

$$V_{RE,p} = V_{RE} * \frac{V_{BG,p}}{V_{BG}}$$

Where:

$V_{RE,p}$ = The batch volume of renewable electricity for batch pathway p, in kWh.

V_{RE} = The total volume of renewable electricity produced, in kWh, per paragraph (k)(3)(iii) of this section.

$V_{BG,p}$ = The total volume of biogas used to produce renewable electricity under

batch pathway p, in Btu, per § 80.105(j)(3)(i).

V_{BG} = The total volume of biogas used to produce renewable electricity, in Btu, per § 80.105(j)(3)(ii).

(ii) For renewable electricity produced from RNG:

$$V_{RE,p} = V_{RE} * \frac{RIN_{RNG,p}}{RIN_{RNG}}$$

Where:

$V_{RE,p}$ = The batch volume of renewable electricity for batch pathway p, in kWh.

V_{RE} = The total volume of renewable electricity produced, in kWh, per paragraph (k)(3)(iii) of this section.

$RIN_{RNG,p}$ = The total number of RINs for RNG that were retired by the renewable electricity generator corresponding to the volume of RNG used to produce renewable electricity under batch pathway p.

RIN_{RNG} = The total number of RINs for RNG that were retired by the renewable electricity generator corresponding to the volume of RNG used to produce renewable electricity.

(iii) The total volume of renewable electricity produced must be calculated as follows:

$$V_{RE} = (V_E - V_{EGU}) * \left(\frac{FE_{RNG}}{FE_{FS}}\right)$$

Where:

V_{RE} = The total volume of renewable electricity produced, in kWh.

V_E = The total volume of electricity produced at the renewable electricity generation facility for the calendar month, in kWh, as measured under § 80.165.

V_{EGU} = The total volume of electricity used by EGUs at the renewable electricity generation facility for the calendar month, in kWh.

FE_{RNG} = The total higher heating value of the RNG used to produce electricity, in Btu. For purposes of this equation, FE_R is equal to the number of RINs retired for RNG under § 80.140(e) for the calendar month multiplied by 85,200 Btu.

FE_{FS} = The total higher heating value of the feedstocks used to produce electricity, in Btu, as measured under § 80.165.

(l) *Limitations.* (1) For each renewable electricity generation facility, the renewable electricity generator must only produce renewable electricity from one of the following:

(i) Biogas in a biogas closed distribution system.

(ii) RNG.

(2) For each renewable electricity generation facility, the renewable electricity generator must only enter into a RIN generation agreement with a single RERG, except as specified in § 80.135(a)(1)(iii)(B).

(3) Renewable electricity produced from biogas in a biogas closed distribution system may only be used for RIN generation if biogas is the only feedstock used to produce electricity at the renewable electricity generation facility during that month.

§ 80.115 Renewable electricity RIN generators.

(a) *General requirements.* (1) Any RERG must comply with the requirements of this section.

(2) The RERG must also comply with all other applicable requirements of this part and 40 CFR part 1090.

(3) If the RERG meets the definition of more than one type of regulated party under this part or 40 CFR 1090, the RERG must comply with the requirements applicable to each of those types of regulated parties.

(4) The RERG must comply with all applicable requirements of this part, regardless of whether they are identified in this section.

(b) *Registration.* The RERG must register with EPA under §§ 80.145, 80.1450, and 40 CFR part 1090, subpart I, as applicable.

(c) *Reporting.* The RERG must submit reports to EPA under §§ 80.150, 80.1451, and 80.1452, as applicable.

(d) *Recordkeeping.* The RERG must create and maintain records under §§ 80.155 and 80.1454.

(e) *PTDs.* On each occasion when the RERG transfers RINs to another party, the transferor must provide to the transferee PTDs under § 80.1453.

(f) *Foreign RERG requirements.* A foreign RERG must meet all requirements that apply to a RERG under this part, as well as the additional requirements for foreign RERGs specified in § 80.170.

(g) *Attest engagements.* The RERG must submit annual attest engagement reports to EPA under §§ 80.175 and 80.1464 using procedures specified in 40 CFR 1090.1800 and 1090.1805.

(h) *QAP.* Prior to the generation of a Q–RIN for renewable electricity, the RERG must meet all applicable requirements specified in § 80.180.

(i) *Batches.* (1) A batch of RINs for renewable electricity is the total number of RINs generated under § 80.135 for a renewable electricity generation facility under a single batch pathway for the quarter.

(2) The RERG must assign a number (the ''batch number'') to each batch of RINs as specified in § 80.1425.

§ 80.120 RNG producers, RNG importers, and biogas closed distribution system RIN generators.

(a) *General requirements.* (1) Any RNG producer, RNG importer, or biogas closed distribution system RIN generator that generates RINs must comply with the requirements of this section.

(2) The RNG producer, RNG importer, or biogas closed distribution system RIN generator must also comply with all other applicable requirements of this part and 40 CFR part 1090.

(3) If the RNG producer, RNG importer, or biogas closed distribution system RIN generator meets the definition of more than one type of regulated party under this part or 40 CFR 1090, the RNG producer, RNG importer, or biogas closed distribution system RIN generator must comply with the requirements applicable to each of those types of regulated parties.

(4) The RNG producer, RNG importer, or biogas closed distribution system RIN generator must comply with all applicable requirements of this part, regardless of whether the requirements are identified in this section.

(5) The transfer and batch segregation limits specified in § 80.1476(g) do not apply.

(b) *Registration.* The RNG producer, RNG importer, or biogas closed distribution system RIN generator must register with EPA under §§ 80.145, 80.1450, and 40 CFR part 1090, subpart I, as applicable.

(c) *Reporting.* The RNG producer, RNG importer, or biogas closed distribution system RIN generator must submit reports to EPA under §§ 80.150, 80.1451, and 80.1452, as applicable.

(d) *Recordkeeping.* The RNG producer, RNG importer, or biogas closed distribution system RIN generator must create and maintain records under §§ 80.155 and 80.1454.

(e) *PTDs.* On each occasion when the RNG producer, RNG importer, or biogas closed distribution system RIN generator transfers RNG, renewable fuel, or RINs to another party, the transferor must provide to the transferee PTDs under §§ 80.160 and 80.1453, as applicable.

(f) *Sampling, testing, and measurement.* (1)(i) An RNG producer must continuously measure the volume of RNG, in Btu, prior to injection of RNG from the RNG production facility into a natural gas commercial pipeline system.

(ii) An RNG producer that trucks RNG from the RNG production facility to a pipeline interconnect must continuously measure the volume of RNG, in Btu, upon loading and unloading of each truck.

(iii) An RNG producer that injects RNG from an RNG production facility into a natural gas commercial pipeline system must sample and test a representative sample of all the following at least once per calendar year, as applicable:

(A) Biogas used to produce RNG.

(B) RNG before blending with non-renewable components.

(C) RNG after blending with non-renewable components.

(iv) A party that upgrades biogas but does not produce RNG must continuously measure the volume of biogas, in Btu, after such upgrading has been conducted.

(2) All sampling, testing, and measurements must be done in accordance with § 80.165.

(g) *Foreign RNG producer, RNG importer, and foreign biogas closed distribution system RIN generator requirements.* (1)(i) A foreign RNG producer must meet all requirements that apply to an RNG producer under this part, as well as the additional requirements for foreign RNG producers specified in § 80.170.

(ii) A foreign RNG producer must either generate RINs under § 80.140 or enter into a contract with an RNG importer as specified in § 80.170(e).

(2) An RNG importer must meet all requirements that apply to an RNG importer specified in § 80.170(i).

(3) A foreign biogas closed distribution system RIN generator must meet all requirements that apply to a biogas closed distribution system RIN generator under this part, as well as the additional requirements for foreign biogas closed distribution system RIN generators specified in § 80.170 and for RIN-generating foreign renewable fuel producers specified in § 80.1466.

(h) *Attest engagements.* The RNG producer, RNG importer, or biogas closed distribution system RIN generator must submit annual attest engagement reports to EPA under §§ 80.175 and 80.1464 using procedures specified in 40 CFR 1090.1800 and 1090.1805.

(i) *QAP.* Prior to the generation of a Q–RIN for RNG or biogas-derived renewable fuel, the RNG producer, RNG importer, or biogas closed distribution system RIN generator must meet all applicable requirements specified in § 80.180.

(j) *Batches.* (1) A batch of RNG is the total volume of RNG produced at an RNG production facility under a single batch pathway for the calendar month, in Btu, as determined under paragraph (j)(4) of this section.

(2) A batch of biogas-derived renewable fuel must comply with the requirements specified in § 80.1426(d).

(3) The RNG producer, RNG importer, or biogas closed distribution system RIN generator must assign a number (the ''batch number'') to each batch of RNG or biogas-derived renewable fuel consisting of their EPA-issued company registration number, the EPA-issued facility registration number, the last two digits of the calendar year in which the batch was produced, and a unique number for the batch, beginning with the number one for the first batch produced each calendar year and each subsequent batch during the calendar year being assigned the next sequential number (*e.g.,* 4321–54321–23–000001, 4321–54321–23–000002, etc.).

(4)(i) The batch volume of RNG for each batch pathway must be calculated as follows:

$$V_{RNG,p} = V_{RNG} * \frac{FE_p}{FE_{total}}$$

Where:

$V_{RNG,p}$ = The batch volume of RNG for batch pathway p, in Btu.

V_{RNG} = The total volume of RNG produced, in Btu, per paragraph (j)(4)(ii) of this section.

FE_p = Sum of feedstock energies from all feedstocks used to produce RNG under batch pathway p, in Btu, per § 80.1426(f)(3)(vi).

FE_{total} = Sum of feedstock energies from all feedstocks used to produce RNG, in Btu, per § 80.1426(f)(3)(vi).

(ii) The total volume of RNG produced must be calculated as follows:

$$V_{RNG} = V_{NG} * R$$

Where:

V_{RNG} = The total volume of RNG produced, in Btu.

V_{NG} = The total volume of natural gas produced at the RNG production facility for the calendar month, in Btu, as measured under § 80.165.

R = The renewable fraction of the natural gas produced at the RNG production facility for the calendar month. For natural gas produced only from renewable feedstocks, R is equal to 1. For natural gas produced from both renewable and non-renewable feedstocks, R must be measured by a carbon-14 dating test method, per § 80.1426(f)(9).

§ 80.125 RNG RIN separators.

(a) *General requirements.* (1) Any RNG RIN separator must comply with the requirements of this section.

(2) The RNG RIN separator must also comply with all other applicable requirements of this part and 40 CFR part 1090.

(3) If the RNG RIN separator meets the definition of more than one type of regulated party under this part or 40 CFR 1090, the RNG RIN separator must comply with the requirements applicable to each of those types of regulated parties.

(4) The RNG RIN separator must comply with all applicable requirements of this part, regardless of whether the requirements are identified in this section.

(b) *Registration.* The RNG RIN separator must register with EPA under §§ 80.145, 80.1450, and 40 CFR part 1090, subpart I, as applicable.

(c) *Reporting.* The RNG RIN separator must submit reports to EPA under §§ 80.150, 80.1451, and 80.1452, as applicable.

(d) *Recordkeeping.* The RNG RIN separator must create and maintain records under §§ 80.155 and 80.1454.

(e) *PTDs.* On each occasion when the RNG RIN separator transfers title of renewable fuel and RINs to another party, the transferor must provide to the transferee PTDs under § 80.1453.

(f) *Measurement.* (1) An RNG RIN separator must continuously measure the volume of natural gas, in Btu, withdrawn from the natural gas commercial pipeline system.

(2) All measurements must be done in accordance with § 80.165.

(g) *Attest engagements.* The RNG RIN separator must submit annual attest engagement reports to EPA under §§ 80.175 and 80.1464 using procedures specified in 40 CFR 1090.1800 and 1090.1805.

§ 80.130 Parties that produce biogas-derived renewable fuel from biogas used as a biointermediate or RNG used as a feedstock.

(a) *General requirements.* (1) Any renewable fuel producer that uses biogas as a biointermediate or RNG as a feedstock to produce a biogas-derived renewable fuel must comply with the requirements of this section.

(2) The renewable fuel producer must also comply with all other applicable requirements of this part and 40 CFR part 1090.

(3) If the renewable fuel producer meets the definition of more than one type of regulated party under this part or 40 CFR 1090, the renewable fuel producer must comply with the requirements applicable to each of those types of regulated parties.

(4) The renewable fuel producer must comply with all applicable requirements of this part, regardless of whether they are identified in this section.

(5) The transfer and batch segregation limits specified in § 80.1476(g) do not apply.

(b) *Registration.* The renewable fuel producer must register with EPA under §§ 80.145, 80.1450, and 40 CFR part 1090, subpart I, as applicable.

(c) *Reporting.* The renewable fuel producer must submit reports to EPA under §§ 80.150, 80.1451, and 80.1452, as applicable.

(d) *Recordkeeping.* The renewable fuel producer must create and maintain records under §§ 80.155 and 80.1454.

(e) *PTDs.* On each occasion when the renewable fuel producer transfers title of biogas-derived renewable fuel and RINs to another party, the transferor must provide to the transferee PTDs under §§ 80.160 and 80.1453.

(f) *Measurement.* (1) A renewable fuel producer must continuously measure the volume of biogas or natural gas, in Btu, withdrawn from the natural gas commercial pipeline system, as applicable.

(2) All measurements must be done in accordance with § 80.165.

(g) *Attest engagements.* The renewable fuel producer must submit annual attest engagement reports to EPA under §§ 80.175 and 80.1464 using procedures specified in 40 CFR 1090.1800 and 1090.1805.

(h) *QAP.* Prior to the generation of a Q–RIN for biogas-derived renewable fuel produced from biogas used as a biointermediate or RNG used as a feedstock, the renewable fuel producer must meet all applicable requirements specified in § 80.180.

§ 80.135 RINs for renewable electricity.

(a) *General RIN generation provisions*—(1) *RIN generation agreements.* (i) Only a RERG may generate RINs for renewable electricity.

(ii) A RERG must only generate RINs for renewable electricity represented by a RIN generation agreement obtained from a registered renewable electricity generator.

(iii)(A) Except as specified in paragraph (a)(1)(iii)(B) of this section, for each renewable electricity generation facility, a renewable electricity generator must contract the RIN generation agreement to only one RERG and identify the RERG in the renewable electricity generator's registration information submitted under § 80.145.

(B) A renewable electricity generator may only change the designated RERG for RIN generation agreement for a renewable electricity generation facility once per calendar year unless EPA, in its sole discretion, allows the renewable electricity generator to change the designated RERG more frequently.

(iv) A RERG may have RIN generation agreements from multiple renewable electricity generation facilities and from multiple renewable electricity generators.

(v) A RERG must not transfer any RIN generation agreement to any other party.

(2) *RIN generation timing.* (i) A RERG must only generate RINs quarterly.

(ii) A RERG must generate RINs no later than 30 days after the end of the quarter for which they are generating the RINs.

(iii) The generation year for RINs generated for renewable electricity is the calendar year in which the renewable electricity was generated.

(3) *Renewable electricity allocation.* A RERG may allocate renewable electricity data for the generation of RINs in any manner as long all the following conditions are met:

(i) The total number of RINs generated does not exceed the total number of RINs determined under paragraph (c)(1) of this section.

(ii) The number of RINs generated under each batch pathway for a particular renewable electricity generation facility does not exceed the number of RINs determined under paragraph (c)(2) of this section.

(iii) Any unallocated renewable electricity for one quarter may not be used for RIN generation in another quarter.

(b) *Requirements for renewable electricity from biogas or RNG.* (1) Except as specified in paragraph (b)(2) of this section, RINs for renewable electricity produced from biogas or RNG may only be generated if all the following requirements are met:

(i) The biogas was produced by a biogas producer meeting the requirements specified in § 80.105, if applicable.

(ii) The RNG was produced by an RNG producer meeting the requirements specified in § 80.120, if applicable.

(iii) The renewable electricity was produced from biogas or RNG by a renewable electricity generator meeting the requirements specified in § 80.110.

(2) A RERG may generate RINs for renewable electricity regardless of whether the renewable electricity generator, biogas producer, or both have had their registration(s) accepted under § 80.145 if all the following requirements are met:

(i) The renewable electricity generator and biogas producer each submitted a registration request under § 80.145 with a third-party engineering review report to EPA on or before December 31, 2023.

(ii) Neither the biogas producer nor renewable electricity generator substantially alters their facilities after the third-party engineering review site visit.

(iii) The biogas was produced after the third-party engineering review site visit.

(iv) The renewable electricity generator entered into a RIN generation agreement with the RERG on or before December 31, 2023.

(v) The renewable electricity was produced between January 1, 2024, and April 30, 2024.

(vi) The biogas producer, renewable electricity generator, and RERG meet all applicable requirements under this subpart for the biogas, renewable electricity, and RINs.

(vii) EPA accepts the registrations for the biogas producer and renewable electricity generator on or before April 30, 2024.

(c) *RIN generation equations.* (1) The total number of RINs a RERG is eligible to generate for each quarter must be calculated as follows:

$$eRIN_Q = \frac{MIN\left(EL_{FLEET,Q} \middle| EL_{PRO,Q}\right)}{EqV_{RE}}$$

Where:

$eRIN_Q$ = The total number of RINs the RERG is eligible to generate for quarter Q.

MIN = A minimization function that takes the lesser of the two subsequent values in parentheses.

$EL_{FLEET,Q}$ = The total volume of electricity that was used by the RERG's fleet for quarter Q, in kWh, per paragraph (c)(1)(i) of this section.

$EL_{PRO,Q}$ = The total volume of renewable electricity eligible for RIN generation produced by all renewable electricity generation facilities for which the RERG has obtained RIN generation agreements for quarter Q, in kWh, per paragraph (c)(1)(ii) of this section.

EqV_{RE} = The equivalence value for renewable electricity, in kWh per RIN, per § 80.1415(b)(6).

(i) *Calculating RINs using the RERG's fleet.* The total volume of electricity that was used in the RERG's fleet for each quarter must be calculated as follows:

$$EL_{FLEET,Q} = \left(\frac{PHEV_Q * eVMT_{PHEV} * FE_{PHEV} + EV_Q * eVMT_{EV} * FE_{EV}}{QPY}\right)$$

Where:

$EL_{FLEET,Q}$ = The total volume of electricity that was used in the RERG's fleet for quarter Q, in kWh.

$PHEV_Q$ = The number of PHEVs in the RERG's fleet for quarter Q, as reported to EPA under § 80.150.

$eVMT_{PHEV}$ = The estimated annual distance traveled in the all-electric mode of an average PHEV in the RERG's fleet, in miles per year, per paragraph (c)(1)(i)(A) of this section.

FE_{PHEV} = The vehicle fuel economy for an average PHEV, in kWh per mile. For purposes of this equation, FE_{PHEV} is equal to 0.32.

EV_Q = The number of EVs in the RERG's fleet for quarter Q, as reported to EPA under § 80.150.

$eVMT_{EV}$ = The estimated annual distance traveled for an average EV, in miles per year. For purposes of this equation, $eVMT_{EV}$ is equal to 7,200.

FE_{EV} = The vehicle fuel economy for an average EV, in kWh per mile. For purposes of this equation, FE_{EV} is equal to 0.32.

QPY = The number of quarters per year. For purposes of this equation, QPY is equal to 4.

(A) The estimated annual distance traveled in the all-electric mode of an average PHEV in the RERG's fleet must be calculated as follows:

$$eVMT_{PHEV} = VMT_{PHEV} * \frac{\sum_{i=1}^{nP} n_{i,Q} UF_i}{\sum_{i=1}^{nP} n_{i,Q}}$$

Where:

$eVMT_{PHEV}$ = The estimated annual distance traveled in the all-electric mode of an average PHEV in the RERG's fleet, in miles per year.

VMT_{PHEV} = The estimated annual distance traveled for an average PHEV, in miles per year. For purposes of this equation, VMT_{PHEV} equals 11,500.

nP = The number of PHEV groups with distinct make, model, model year, and trim in the RERG's fleet, as reported to EPA under § 80.150.

$n_{i,Q}$ = The number of PHEVs of a particular make, model, model year, and trim in the RERG's fleet designated with i (the ''particular PHEV'') for quarter Q, as reported to EPA under § 80.150.

UF_i = The utilization factor of the particular PHEV, per paragraph (c)(1)(i)(B) of this section.

(B) The utilization factor of a particular PHEV must be calculated as follows:

(*1*) Determine the all-electric range of the PHEV as specified in 40 CFR 600.210–12(a)(4).

(*2*)(*i*) If the all-electric range of the PHEV is less than or equal to 10 miles, then UF_i equals 0.

(*ii*) If the all-electric range of the PHEV is greater than or equal to 100 miles, then UF_i equals 0.867.

(*iii*) If the all-electric range of the PHEV is greater than 10 miles and less than 100 miles, then UF_i must be calculated as follows:

$$UF_i = 0.379 * \ln(R_{EV,i}) - 0.878$$

Where:

UF_i = The utilization factor of the PHEV.

$R_{EV,i}$ = The all-electric range of the PHEV, in miles, per 40 CFR 600.210–12(a)(4).

(ii) *Calculating RINs using quarterly renewable electricity produced.* The volume of renewable electricity eligible for RIN generation produced by each renewable electricity generation facility for which the RERG has obtained a RIN generation agreement for each batch pathway for each quarter must be calculated as follows:

$$EL_{PRO,Q,i,p} = PRO_{Q,i,p} * (1 - Loss_{LINE}) * CE$$

Where:

$EL_{PRO,Q,i,p}$ = The volume of renewable electricity eligible for RIN generation produced by renewable electricity generation facility i for batch pathway p for quarter Q, in kWh.

$PRO_{Q,i,p}$ = The volume of renewable electricity produced by renewable electricity generation facility i for batch pathway p for quarter Q, in kWh.

$Loss_{LINE}$ = The assumed fraction of renewable electricity loss from the transmission of the renewable electricity expressed as a proportion. For purposes of this equation, $Loss_{LINE}$ equals 0.053.

CE = The assumed fraction of renewable electricity retained during the charging of the EV or PHEV expressed as a proportion. For purposes of this equation, CE equals 0.85.

(2) For each quarter, the maximum number of RINs a RERG is eligible to generate under each batch pathway for a particular renewable electricity facility must be calculated as follows:

$$eRIN_{max,Q,i,p} = \frac{EL_{PRO,Q,i,p}}{EqV_{RE}}$$

Where:

$eRIN_{max,Q,i,p}$ = The maximum number of RINs that a RERG is eligible to generate under batch pathway p for renewable electricity facility i for quarter Q.

EqV_{RE} = The equivalence value for renewable electricity, in kWh per RIN, per § 80.1415(b)(6).

$EL_{PRO,Q,i,p}$ = The volume of renewable electricity eligible for RIN generation produced by renewable electricity generation facility i for batch pathway p for quarter Q, in kWh, per paragraph (c)(1)(ii) of this section.

(d) *RIN separation.* A RERG must separate RINs generated for renewable electricity under § 80.1429(b)(5)(i).

(e) *RIN retirement.* A party must retire RINs generated for renewable electricity if any of the conditions specified in § 80.1434(a) apply and must comply with § 80.1434(b).

§ 80.140 RINs for RNG.

(a) *General requirements.* (1) Any party that generates, assigns, transfers, receives, separates, or retires RINs for RNG must comply with the requirements of this section.

(2) RINs for RNG must be transacted as specified in § 80.1452.

(b) *RIN generation.* (1) Only RNG producers may generate RINs for RNG injected into a natural gas commercial pipeline system.

(2) RNG producers must generate RINs for only the biomethane content of biogas supplied by a biogas producer registered under § 80.145.

(3) RNG producers must generate RINs using the applicable requirements for RIN generation in § 80.1426.

(4) If non-renewable components are blended into RNG, the RNG producer must generate RINs for only the biomethane content of the RNG prior to blending.

(5) RNG producers must use the measurement procedures specified in § 80.165 to determine the heating value of RNG for the generation of RINs.

(6) The number of RINs generated for a batch of RNG under each batch pathway must be calculated as follows:

$$RIN_{RNG,p} = \frac{V_{RNG,p}}{EqV_{RNG}}$$

Where:

$RIN_{RNG,p}$ = The number of RINs generated for an RNG batch under batch pathway p, in gallon-RINs.

$V_{RNG,p}$ = The batch volume of RNG for batch pathway p, in Btu, per § 80.120(j)(4)(i).

EqV_{RNG} = The equivalence value for RNG, in Btu per RIN, per § 80.1415(b)(5).

(7) When RNG is injected from multiple RNG production facilities at a pipeline interconnect, the total number of RINs generated must not be greater than the total number of RINs eligible to be generated under § 80.1415(b)(5) for the total volume of RNG injected by all RNG production facilities at that pipeline interconnect.

(8) For RNG that is trucked prior to injection into a natural gas commercial pipeline system, the total volume of RNG injected for the calendar month, in Btu, must not be greater than the lesser of the total loading or unloading volume measurement for the month, in Btu, as required under § 80.165(a)(1).

(c) *RIN assignment and transfer.* (1) RNG producers must assign the RINs generated for a batch of RNG to the specific volume of RNG injected into the natural gas commercial pipeline system.

(2) No party may assign any other RIN to a volume of RNG except as specified in paragraph (c)(1) of this section.

(3) Each party that transfers title of a volume of RNG to another party must transfer title of any assigned RINs for the volume of RNG to the transferee.

(d) *RIN separation.* (1) A party must only separate a RIN from RNG if all the following requirements are met:

(i) The party withdrew the RNG from the natural gas commercial pipeline system.

(ii) The party produced or oversaw the production of the renewable CNG/LNG from the RNG.

(iii) The party measured the volume of RNG used to produce the renewable CNG/LNG using the procedures specified in § 80.165.

(iv) The party has the following documentation demonstrating that the volume of renewable CNG/LNG was used as transportation fuel:

(A) If the party sold or used the renewable CNG/LNG, records demonstrating the date, location, and volume of renewable CNG/LNG sold or used as transportation fuel.

(B) If the party is relying on documentation from a downstream party, all the following:

(*1*) A written contract with the downstream party for the sale or use of the renewable CNG/LNG as transportation fuel.

(*2*) Records from the downstream party demonstrating the date, location, and volume of renewable CNG/LNG sold or used as transportation fuel.

(*3*) An affidavit from the downstream party confirming that the volume of renewable CNG/LNG was used as transportation fuel and for no other purpose.

(v) The volume of RNG was only used to produce renewable CNG/LNG that is used as transportation fuel and for no other purpose.

(vi) No other party used the information in paragraphs (d)(1)(i) through (v) of this section to separate RINs for the RNG.

(2) An obligated party must not separate RINs for RNG under § 80.1429(b)(1) unless the obligated party meets the requirements in paragraph (d)(1) of this section.

(3) A party must only separate a number of RINs equal to the total volume of RNG (where the Btu are converted to gallon-RINs using the conversion specified in § 80.1415(b)(5)) that the party demonstrates are used as renewable CNG/LNG under paragraph (d)(1) of this section.

(e) *RIN retirement.* (1) A party must retire RINs generated for RNG if any of the conditions specified in § 80.1434(a) apply and must comply with § 80.1434(b).

(2) A party must retire all assigned RINs for a volume of RNG if the RINs are not separated under paragraph (d) of this section by the date the assigned RINs would expire under § 80.1428(c) and must retire the expired, assigned RINs by March 31 of the subsequent year. For example, if an RNG producer assigns RINs for RNG in 2024, the RINs expire if they are not separated under paragraph (d) of this section by December 31, 2025, and must be retired by March 31, 2026.

(3) Any party that uses RNG as a feedstock or as process heat under § 80.1426(f)(12) or (13) must retire any assigned RINs for the volume of RNG within 5 business days of such use of the RNG.

§ 80.142 RINs for renewable CNG/LNG from a biogas closed distribution system.

(a) *General requirements.* (1) Any party that generates, assigns, separates, or retires RINs for renewable CNG/LNG from a biogas closed distribution system must comply with the requirements of this section.

(2) RINs must be transacted as specified in § 80.1452.

(b) *RIN generation.* (1) Renewable CNG/LNG producers must generate RINs using the applicable requirements for RIN generation in § 80.1426.

(2) RINs for renewable CNG/LNG from a biogas closed distribution system may be generated if all the following requirements are met:

(i) The renewable CNG/LNG is produced from renewable biomass and qualifies to generate RINs under an approved pathway.

(ii) The biogas closed distribution system RIN generator has entered into a written contract for the sale or use of a specific quantity of renewable CNG/LNG for use as transportation fuel, and has obtained affidavits from all parties selling or using the renewable CNG/LNG certifying that the renewable CNG/LNG was used as transportation fuel.

(iii) The renewable CNG/LNG is used as transportation fuel and for no other purpose.

(c) *RIN separation.* A biogas closed distribution system RIN generator must separate RINs generated for renewable CNG/LNG under § 80.1429(b)(5)(ii).

(d) *RIN retirement.* A party must retire RINs generated for renewable CNG/LNG from a biogas closed distribution if any of the conditions specified in § 80.1434(a) apply and must comply with § 80.1434(b).

§ 80.145 Registration.

(a) *Applicability.* The following parties must register using the procedures specified in this section, § 80.1450, and 40 CFR 1090.800:

(1) Biogas producers.

(2) Renewable electricity generators.

(3) RERGs.

(4) RNG producers.

(5) Biogas closed distribution system RIN generators.

(6) RNG RIN separators.

(7) Renewable fuel producers using biogas as a biointermediate or RNG as a feedstock.

(b) *General registration requirements*—(1) *New registrants.* (i) Except as allowed under § 80.135(b)(2), parties required to register under this subpart must have an EPA-accepted registration prior to engaging in regulated activities under this subpart.

(ii) Registration information must be submitted at least 60 days prior to engaging in regulated activities under this subpart.

(iii) Parties may engage in regulated activities under this subpart once EPA has accepted their registration and they have met all other applicable requirements under this subpart.

(2) *Existing renewable CNG/LNG registrations.* Parties registered to produce renewable CNG/LNG under an approved pathway before the effective date in § 80.100(d)(1) are deemed registered under this subpart E, except as follows:

(i) If the information in the existing registration is incorrect, the party must update their registration as specified in § 80.1450(d).

(ii) If the information in the existing registration does not meet all the requirements in § 80.145(f), then the party must update their registration to meet all requirements in § 80.145(f) by November 1, 2024.

(iii)(A) Except as specified in paragraph (b)(2)(iii)(B) of this section, the party's three-year engineering review updates must include all of the information required in paragraphs (c) through (h) of this section, as applicable.

(B) A biogas closed distribution system RIN generator does not need to submit an updated engineering review for any facility in the biogas closed distribution system as specified in § 80.1450(d)(1) before the next three-year engineering review update is due as specified in § 80.1450(d)(3).

(3) *Engineering reviews.* (i) A biogas producer, renewable electricity generator, or RNG producer under paragraph (c), (d), or (f) of this section, respectively, must undergo all the following:

(A) A third-party engineering review as specified in § 80.1450(b)(2).

(B) A three-year engineering review update as specified in § 80.1450(d)(3).

(ii) Third-party engineering reviews required under paragraph (b)(3)(i) of this section must evaluate all applicable registration information submitted under this section as well as all applicable requirements in § 80.1450(b).

(4) *Registration updates.* (i) Except as specified in § 80.1450(d)(2), parties registered under this section must submit updated registration information to EPA within 30 days when any of the following occur:

(A) The registration information previously supplied becomes incomplete or inaccurate.

(B) Facility information is updated under § 80.1450(d)(1) or (2), as applicable.

(C) A change of ownership is submitted under 40 CFR 1090.820.

(ii) Information specified in paragraphs (d)(4)(ii) and (i) of this section must be updated according to the schedule specified in § 80.1450(d)(3).

(5) *Registration deactivations.* EPA may deactivate the registration of a party registered under this section as specified in § 80.1450(h), 40 CFR 1090.810, or 40 CFR 1090.815, as applicable.

(c) *Biogas producer.* In addition to the information required under paragraphs (b) and (i) of this section, a biogas producer must submit all the following information for each biogas production facility:

(1) All applicable company and facility information under 40 CFR 1090.805.

(2) Information to establish the biogas production capacity for the biogas production facility, in Btu, including the following as applicable:

(i) Information regarding the permitted capacity in the most recent applicable air permits issued by EPA, a state, a local air pollution control agency, or a foreign governmental agency that governs the biogas production facility, if available.

(ii) Documents demonstrating the biogas production facility's nameplate capacity.

(iii) Information describing the biogas production facility's electricity production for each of the last three calendar years prior to the registration submission, if available.

(3) A description of how the biogas will be used (*e.g.,* RNG, renewable CNG/LNG, or renewable electricity).

(4) Information related to biogas measurement as follows:

(i) A description of how biogas will be measured under § 80.165(a), including the specific standards that the meters are operated under.

(ii) A description of the biogas production process, including a process flow diagram that includes metering type(s) and location(s).

(iii) If the biogas producer is unable to continuously measure biogas, the biogas producer may request the approval by EPA of an alternative sampling protocol as long as the biogas producer demonstrates that the alternative sampling protocol properly measures the heating value of the biogas, as applicable.

(5) For biogas used to produce renewable CNG/LNG in a biogas closed distribution system, all the following additional information:

(i) A process flow diagram of the physical process from biogas production to dispensing of renewable CNG/LNG as transportation fuel, including major equipment (*e.g.,* tanks, pipelines, flares, separation equipment, compressors, and dispensing infrastructure).

(ii) A description of losses of heating content going from biogas to renewable CNG/LNG and an explanation of how such losses would be accounted for.

(iii) A description of the physical process from biogas production to dispensing of renewable CNG/LNG as transportation fuel, including the biogas closed distribution system.

(iv) A description of the vehicle fleet that is expected to use the CNG/LNG as transportation fuel.

(6) For biogas in a biogas closed distribution system used to produce renewable electricity, all the following additional information:

(i) Identifying information for the renewable electricity generator that the biogas producer will supply.

(ii) A process flow diagram of the physical process from biogas production to entering the renewable electricity generation facility, including major equipment (*e.g.,* feedstock retrieval, tanks, pipelines, flares, separation equipment, and compressors).

(iii) A description of the physical process from biogas production to entering the renewable electricity generation facility, including the biogas closed distribution system and explaining how the biogas is introduced into a biogas closed distribution system connected to the renewable electricity generation facility.

(7) For biogas used as a biointermediate, all the following additional information:

(i) All information specified in § 80.1450(b)(1)(ii)(B).

(ii) [Reserved]

(8) For biogas used to produce RNG, all the following additional information:

(i) The RNG producer that will upgrade the biogas.

(ii) A process flow diagram of the physical process from biogas production to entering the RNG production facility, including major equipment (*e.g.,* tanks, pipelines, flares, separation equipment).

(iii) A description of the physical process from biogas production to entering the RNG production facility, including an explanation of how the biogas reaches the RNG production facility.

(9) For biogas produced in an agricultural digester, all the following information:

(i) A separated yard waste plan specified in § 80.1450(b)(1)(vii)(A), as applicable.

(ii) Crop residue information specified in § 80.1450(b)(1)(xv), as applicable.

(iii) A process flow diagram of the physical process from feedstock entry to biogas production, including major equipment (*e.g.,* feedstock preprocessing equipment, tanks, digesters, pipelines, flares).

(10) For biogas produced in a municipal wastewater treatment plant digester, all the following information:

(i) A process flow diagram of the physical process from feedstock entry to biogas production, including major equipment (*e.g.,* feedstock preprocessing equipment, tanks, digesters, pipelines, flares).

(ii) [Reserved]

(11) For biogas produced in a separated MSW digester, all the following information:

(i) Separated MSW plan specified in § 80.1450(b)(1)(viii).

(ii) A process flow diagram of the physical process from feedstock entry to biogas production, including major equipment (*e.g.,* feedstock preprocessing equipment, tanks, digesters, pipelines, flares).

(12) For biogas produced in other waste digesters, all the following information:

(i) A separated MSW plan specified in § 80.1450(b)(1)(viii), as applicable.

(ii) A separated yard waste plan specified in § 80.1450(b)(1)(vii)(A), as applicable.

(iii) Crop residues information specified in § 80.1450(b)(1)(xv), as applicable.

(iv) A separated food waste plan or biogenic waste oils/fats/greases plan specified in § 80.1450(b)(1)(vii)(B), as applicable.

(v) If the waste digester simultaneously converts cellulosic and non-cellulosic feedstocks, registration information specified in § 80.1450(b)(1)(xiii)(C).

(vi) A process flow diagram of the physical process from feedstock entry to biogas production, including major equipment (*e.g.,* feedstock preprocessing equipment, tanks, digesters, pipelines, flares).

(d) *Renewable electricity generator.* In addition to the information required under paragraphs (b) and (i) of this section, a renewable electricity generator must submit all the following information for each renewable electricity generation facility:

(1) All applicable company and facility information under 40 CFR 1090.805.

(2) A description whether the renewable electricity generation facility will be using biogas or RNG to generate renewable electricity and, if using biogas, a description of their relationship to each biogas producer.

(3) Information to establish the renewable electricity generation facility's renewable electricity generation capacity, including all the following:

(i) Information regarding the permitted capacity in the most recent applicable air permits issued by EPA, a state, a local air pollution control agency, or a foreign governmental agency that governs the renewable electricity generation facility, if available.

(ii) Documents demonstrating the renewable electricity generation facility's nameplate capacity.

(iii) Information describing the renewable electricity generation facility's electricity production for each of the last three calendar years prior to the registration submission, if available.

(iv) The construction date of the renewable electricity generation facility.

(4) Information related to each the renewable electricity generation facility's design, as follows:

(i) A diagram of the physical layout of the renewable electricity generation facility that identifies and assigns a unique identifier for each EGU and shows all connections to the biogas production facility and the conterminous electricity distribution system.

(ii) A description of the type, rating, electricity production capacity, manufacturer, and electrical consumption capacity of each EGU at the renewable electricity generation facility.

(iii) A description, including any applicable equations, that identifies the measurement locations on the diagram specified in paragraph (d)(4)(i) of the section and identifies other documentation that will be used to determine the volume, in kWh, and D code eligibility of renewable electricity.

(iv) A demonstration that the renewable electricity generation facility has installed measurement capabilities that meet the requirements of § 80.165(c), as applicable.

(5) Identification of the RERG that the renewable electricity generator has a RIN generation agreement as specified in § 80.135, if available.

(6) The information specified in paragraph (i) of this section.

(e) *RERG.* In addition to the information required under paragraph (b) of this section, a RERG must submit all the following information:

(1) All applicable company information under 40 CFR 1090.805.

(2) A description of the qualifying pathways.

(3) A description of the RERG's fleet by make, model, model year, and trim, representing the fleet at the time of registration, including all the following information for each vehicle:

(i) Whether the vehicle is an EV or PHEV.

(ii) For PHEVs, the all-electric range of the vehicle, in miles, as determined under § 80.135(c)(1)(i)(B)(*1*).

(iii) The total number of vehicles registered in a state in the covered location (excluding Hawaii).

(4) A description of the relationship to each renewable electricity generator from which the RERG has a RIN generation agreement under § 80.135(a)(1).

(f) *RNG producer.* In addition to the information required under paragraphs (b) and (i) of this section, an RNG producer must submit all the following information for each RNG production facility:

(1) All applicable company and facility information under 40 CFR 1090.805.

(2) All applicable information in § 80.1450(b)(5)(ii).

(3) Annual volume totals of the RNG produced, in Btu, at the RNG production facility for each of the last three calendar years.

(4) The natural gas commercial pipeline system name, location, and pipeline interconnect specifications into which the RNG will be injected.

(5) Information related to biogas and RNG measurement, as follows:

(i) A description of how biogas and RNG will be continuously measured.

(ii) Metering type(s) and location(s) must be included as part of the process flow diagram submitted under § 80.1450(b)(1)(i).

(iii) If the RNG producer is unable to continuously measure biogas, the RNG producer may request the approval by EPA of an alternative sampling protocol as long as the RNG producer demonstrates that the alternative sampling protocol properly measures the heating value of the biogas or RNG, as applicable.

(6) For RNG, information related to the RNG quality, including all the following:

(i) Specifications for the natural gas commercial pipeline system into which the RNG will be injected, including information on all parameters regulated by the pipeline (*e.g.,* hydrogen sulfide, total sulfur, carbon dioxide, oxygen, nitrogen, heating content, moisture, siloxanes, and any other available data related to the gas components).

(ii) Documentation of any waiver provided by the natural gas commercial pipeline system for any parameter of the RNG that does not meet the pipeline specifications.

(iii) A certificate of analysis from an independent laboratory for a representative sample of the raw biogas produced at the biogas production facility as specified in § 80.165(b)(1).

(iv) A certificate of analysis from an independent laboratory for a representative sample of the RNG as specified in § 80.165(b)(1).

(v) If the RNG is blended with non-renewable natural gas prior to injection into a natural gas commercial pipeline system, a certificate of analysis from an independent laboratory for a representative sample of the RNG after

blending with non-renewable natural gas as specified in § 80.165(b)(1).

(vi) A summary table with the results of the certificates of analysis under paragraphs (f)(4)(iii) through (v) of this section and the pipeline specifications under paragraph (f)(4)(i) of this section converted to the same units.

(vii) Certificates of analysis, including the major and minor gas components specified in § 80.165(b)(1).

(viii) EPA may approve an RNG producer's request of an alternative analysis in lieu of the certificates of analysis required under paragraphs (f)(4)(iii) through (v) of this section if the RNG producer demonstrates that the alternative analysis provides information that is equivalent to that provided in the certificates of analysis and that the RNG will meet all parameters required by the pipeline specification.

(ix) A sampling protocol meeting the requirements in § 80.165(b)(1) that accurately represents the average composition of the biogas.

(7) A RIN generation protocol that includes all the following information:

(i) The procedure for allocating RNG injected into the natural gas commercial pipeline system to each RNG production facility and each biogas production facility, including how discrepancies in meter values will be handled.

(ii) A diagram showing the locations of flow meters, gas analyzers, and in-line GC meters used in the allocation procedure.

(iii) A description of when RINs will be generated (*e.g.,* receipt of monthly pipeline statement, etc).

(8) For an RNG production facility that injects RNG at a pipeline interconnect that also has RNG injected from other sources, a description of how the RNG producers will allocate RINs to ensure that all facilities comply with § 80.140(b)(7).

(9) For a foreign RNG producer, all the following additional information:

(i) The applicable information specified in § 80.170.

(ii) Whether the foreign RNG producer will generate RINs for their RNG.

(iii) For non-RIN generating foreign RNG producers, the name and EPA-issued company and facility IDs of the contracted importer under § 80.170(e).

(g) *RNG RIN separator.* In addition to the information required under paragraph (b) of this section, an RNG RIN separator must submit all the following information:

(1) Information specified in 40 CFR 1090.805.

(2) An initial list of locations of any dispensing stations where the RNG RIN separator supplies or intends to supply renewable CNG/LNG for use as transportation fuel.

(3) Description of process and equipment used to compress RNG into renewable CNG/LNG.

(h) *Renewable fuel producer using biogas as a biointermediate or RNG as a feedstock.* In addition to the information required under paragraph (b) of this section, a renewable fuel producer using biogas as a biointermediate or RNG as a feedstock must submit all the following:

(1) All applicable information in § 80.1450(b).

(2) For biogas, documentation demonstrating a direct connection between the biogas producer and the renewable fuel production facility.

(i) *Emissions-related information.* (1) The following parties must submit all the information specified in paragraph (i)(2) of this section for each pollutant specified in paragraph (i)(3) of this section, if available.

(i) Biogas producers, for each landfill or digester at the biogas production facility.

(ii) Renewable electricity generators, for each EGU at the renewable electricity generation facility.

(iii) RNG producers, for each RNG production facility.

(2)(i) The annual emission rate of each pollutant and a description of how the emission rate was measured or determined.

(ii) The regulatory level (*e.g.,* federal, state, local) and citation of the most stringent emission standard for each pollutant.

(iii) The emission rate or emission reduction specified by the most stringent emission standard for each pollutant.

(iv) Copies of National Pollutant Discharge Elimination System Forms 2A, 2B, and 2C.

(3)(i) *Air pollutants.* (A) Carbon dioxide.

(B) Carbon monoxide.

(C) Methane.

(D) Nitrous oxides.

(E) $PM_{2.5}$.

(F) PM_{10}.

(G) Sulfur dioxide.

(ii) *Water pollutants.* (A) Solid effluent.

(B) Liquid effluent.

(C) All pollutants that the party is required to monitor under any National Pollutant Discharge Elimination System permit.

§ 80.150 Reporting.

(a) *General provisions*—(1) *Applicability.* Parties must submit reports to EPA according to the schedule and containing all applicable information specified in this section.

(2) *Forms and procedures for report submission.* All reports required under this section must be submitted using forms and procedures specified by EPA.

(3) *Additional reporting elements.* In addition to any applicable reporting requirement under this section, parties must submit any additional information EPA requires to administer the reporting requirements of this section.

(4) *English language reports.* All reported information submitted to EPA under this section must be submitted in English, or must include an English translation.

(5) *Signature of reports.* Reports required under this section must be signed and certified as meeting all the applicable requirements of this subpart by the RCO or their delegate identified in the company registration under 40 CFR 1090.805(a)(1)(iv).

(6) *Report submission deadlines.* Reports required under this section must be submitted by the following deadlines:

(i) Monthly reports must be submitted by the applicable monthly deadline in § 80.1451(f)(4).

(ii) Quarterly reports must be submitted by the applicable quarterly deadline in § 80.1451(f)(2).

(iii) Annual reports must be submitted by the applicable annual deadline in § 80.1451(f)(1).

(b) *Biogas producers.* A biogas producer must submit monthly reports to EPA containing all the following information for each batch of biogas:

(1) Batch number.

(2) Production date (end date of the calendar month).

(3) Verification status of the batch.

(4) The designated use of the biogas (*e.g.,* biointermediate, renewable electricity, renewable CNG/LNG, or RNG).

(5) The volume of the batch supplied to the downstream party, in Btu and scf, as measured under § 80.165(a).

(6) The associated pathway information, including D code, production process, and feedstock information.

(7) The EPA-issued company and facility IDs for the RNG producer, renewable electricity generator, biogas closed distribution system RIN generator, or renewable fuel producer that received the batch of the biogas.

(c) *Renewable electricity generators.* A renewable electricity generator must submit monthly reports to EPA containing all the following information for each batch of renewable electricity:

(1) Batch number.

(2) Production date (end date of the calendar month).

(3) Description of each batch or portion of a batch of biogas used to

produce the batch of renewable electricity batch, including all the following information:

(i) The biogas batch number.

(ii) The EPA-issued company and facility IDs for the biogas producer that produced the biogas.

(iii) The volume of biogas used as feedstock, in Btu, as measured under § 80.165(a).

(iv) The associated D code of the biogas.

(v) The verification status of the biogas.

(vi) The date or period that the biogas was transferred.

(4) Description of each batch or portion of a batch of RNG used to produce the batch of renewable electricity batch, including all the following information:

(i) The RNG batch number.

(ii) The EPA-issued company and facility IDs for the RNG producer that produced the RNG.

(iii) The volume of natural gas used as feedstock, in Btu, as measured under § 80.165(a).

(iv) The number of RINs retired for the RNG under § 80.140(e).

(v) The associated D code of the RNG.

(vi) The verification status of the RNG.

(vii) The date or period that the RNG was transferred.

(5) Total volume of electricity, in kWh, produced at the renewable electricity generation facility.

(6) Total volume of electricity, in kWh, used by EGUs at the renewable electricity generation facility.

(7) The EPA-issued company and facility IDs for each RERG that received the renewable electricity data representing the batch.

(8) Total volume of renewable electricity, in kWh, described in the renewable electricity data transferred to each RERG.

(d) *RERGs.* A RERG must submit quarterly reports to EPA containing all the following information:

(1) Volume of renewable electricity, in kWh, used to generate RINs for renewable electricity, including all the following information:

(i) The EPA-issued company and facility IDs for each renewable electricity generator and each renewable electricity generation facility.

(ii) For each renewable electricity generation facility, the volume of renewable electricity, in kWh, used to generate RINs for renewable electricity by D code and verification status.

(2) For quarterly RIN generation, a description of the RERG's fleet by make, model, model year, and trim, representing the fleet at the start of the quarter, including all the following information for each vehicle:

(i) Whether each vehicle is an EV or PHEV.

(ii) For PHEVs, the all-electric range of the vehicle, in miles, as determined under § 80.135(c)(1)(i)(B)(*1*).

(iii) The total number of vehicles registered in a state in the covered location (excluding Hawaii).

(3) For future adjustment of the RIN generation parameters, a description of the RERG's fleet by make, model, model year, and trim, representing the fleet at the start of the quarter, including all the following information for each vehicle for which the OEM received vehicle telematic data during the quarter:

(i) The total number of vehicles registered in a state in the covered location (excluding Hawaii).

(ii) Vehicle fuel economy, in kWh per mile.

(iii) Charging efficiency, as a percentage.

(iv) One of the following:

(A) eVMT, in average all-electric miles per vehicle.

(B) Average quarterly charging information, in kWh.

(4) All applicable information in § 80.1451(b)(1)(ii), (2), and (3).

(e) *RNG producers.* (1) An RNG producer must submit quarterly reports to EPA containing all the following information:

(i) The total volume of RNG, in Btu, produced and injected into the natural gas commercial pipeline system as measured under § 80.165.

(ii) [Reserved]

(2) A non-RIN generating foreign RNG producer must submit monthly reports to EPA containing all the following information for each batch of RNG:

(i) Batch number.

(ii) Production date (end date of the calendar month).

(iii) Verification status of the batch.

(iv) The volume of the batch, in Btu and scf, as measured under § 80.165(a).

(v) The associated pathway information, including D code, production process, and feedstock information.

(vi) The EPA-issued company and facility IDs for the RNG importer that will generate RINs for the batch.

(f) *Biogas closed distribution system RIN generators.* A biogas closed distribution system RIN generator must submit quarterly reports to EPA containing all the following information:

(1) The type and volume of biogas-derived renewable fuel, in Btu, produced from biogas.

(2) The total volume of biogas, in Btu, used to produce the biogas-derived renewable fuel as measured under § 80.165.

(3) The name(s) and location(s) of where the biogas-derived renewable fuel is used or sold for use as transportation fuel.

(4) The volume of biogas-derived renewable fuel, in Btu, used at each location where the biogas-derived renewable fuel is used or sold for use as transportation fuel.

(5) All applicable information in § 80.1451(b).

(g) *RNG RIN separators.* An RNG RIN separator must submit quarterly reports to EPA containing all the following information:

(1) Name and location of the natural gas commercial pipeline system where the RNG was withdrawn.

(2) Volume of RNG, in Btu, withdrawn from the natural gas commercial pipeline system during the reporting period by location.

(3) Volume of renewable CNG/LNG, in Btu, produced during the reporting period.

(4) The locations where renewable CNG/LNG was dispensed as transportation fuel.

(5) The volume of renewable CNG/LNG, in Btu, dispensed as transportation fuel at each location.

(h) *Retirement of RINs for RNG.* A party that retires RINs for RNG used as a feedstock must submit quarterly reports to EPA containing all the following information:

(1) The name(s) and location(s) of the natural gas commercial pipeline where the RNG was withdrawn.

(2) Volume of RNG, in Btu, withdrawn from the natural gas commercial pipeline during the reporting period by location.

(3) The EPA-issued company and facility IDs for the facility that used the withdrawn RNG to produce renewable electricity or as a feedstock.

(4) For each facility, the volume of renewable electricity, in kWh, or biogas-derived renewable fuel, in Btu, produced from the withdrawn RNG.

(5) The number of RINs for RNG retired during the reporting period by D code and verification status.

§ 80.155 Recordkeeping.

(a) *General requirements*—(1) *Records to be kept.* All parties subject to the requirements of this subpart must keep the following records:

(i) *Compliance report records.* Records related to compliance reports submitted to EPA under §§ 80.150, 80.175, 80.1451, and 80.1452 as follows:

(A) Copies of all reports submitted to EPA.

(B) Copies of any confirmation received from the submission of such reports to EPA.

(C) Copies of all underlying information and documentation used to prepare and submit the reports.

(D) Copies of all calculations required under this subpart.

(ii) *Registration records.* Records related to registration under §§ 80.145, 80.170, and 80.1450 and 40 CFR part 1090, subpart I as follows:

(A) Copies of all registration information and documentation submitted to EPA.

(B) Copies of all underlying information and documentation used to prepare and submit the registration request.

(iii) *PTD records.* Copies of all PTDs required under §§ 80.160 and 80.1453.

(iv) *Subpart M records.* Any applicable record required under § 80.1454.

(v) *QAP records.* Information and documentation related to participation in any QAP program, including contracts between the entity and the QAP provider, records related to verification activities under the QAP, and copies of any QAP-related submissions.

(vi) *Sampling, testing, and measurement records.* Documents supporting the sampling, testing, and measurement results relied upon under § 80.165, including any results and maintenance and calibration records.

(vii) *Other records.* Any other records relied upon by the party to demonstrate compliance with this subpart.

(viii) *Potentially invalid RINs.* Any records related to potentially invalid RINs under § 80.195.

(ix) *Foreign parties.* Any records related to foreign parties under § 80.170.

(2) *Length of time records must be kept.* The records required under this section and § 80.160 must be kept for five years from the date they were created, except that records related to transactions involving RINs must be kept for five years from the date of the RIN transaction.

(3) *Make records available to EPA.* Any party required to keep records under this section must make records available to EPA upon request by EPA. For records that are electronically generated or maintained, the party must make available any equipment and software necessary to read the records or, upon approval by EPA, convert the electronic records to paper documents.

(4) *English language records.* Any record requested by EPA under this section must be submitted in English, or include an English translation.

(b) *Biogas producers.* In addition to the records required under paragraph (a) of this section, a biogas producer must keep all the following records:

(1) Copies of all contracts, PTDs, affidavits required under this part, and all other commercial documents with any renewable electricity generator, RNG producer, or renewable fuel producer.

(2) Documents supporting the volume of biogas, in Btu and scf, produced for each batch.

(3) Documents supporting the composition and cleanup of biogas produced for each batch.

(4) Documentation supporting the use of each process heat source and supporting the amount of each source used in the production process for each batch.

(5) In addition to any applicable recordkeeping requirement for the use of renewable biomass to produce biogas under § 80.1454, information and documentation showing that the biogas came from renewable biomass.

(i) For agricultural digesters, a quarterly affidavit signed by the RCO or their delegate that only animal manure, crop residue, or separated yard waste that had an adjusted cellulosic content of at least 75% were used to produce biogas during the quarter.

(ii) For municipal wastewater treatment and separated MSW digesters, a quarterly affidavit signed by the RCO or their delegate that only feedstocks that had an adjusted cellulosic content of at least 75% were used to produce biogas during the quarter.

(iii) For biogas produced from separated yard waste, separated food waste, or biogenic waste oils/fats/greases, documents required under § 80.1454(j)(1).

(iv) For biogas produced from separated municipal solid waste, documents required under § 80.1454(j)(2).

(6) For biogas produced in digesters simultaneously converting cellulosic and non-cellulosic feedstock, all the following:

(i) Documents for each delivery of feedstock to the biogas production facility, demonstrating the mass of each feedstock delivered, type of feedstock delivered, and name of feedstock supplier.

(ii) Process operational data for the types of data specified at registration under § 80.1450(b)(1)(xiii)(C)(*4*) or (*5*), as applicable.

(iii) Documents for each batch demonstrating volatile solids and total solids measurements of feedstocks.

(7) Copies of all records and notifications related to the identification of potentially inaccurate or non-qualifying biogas volumes under § 80.195(b).

(c) *Renewable electricity generators.* In addition to the records required under paragraph (a) of this section, a renewable electricity generator must keep all the following records:

(1) Contracts, PTDs, affidavits required under this part, and all other commercial documents with any biogas producer, RNG producer, RIN owner, or RERG, as applicable.

(2) Documents supporting the volume of biogas or natural gas (including both RNG and non-renewable natural gas), in Btu and scf, used to produce electricity in monthly increments received from any source.

(3) Documents supporting the monthly volume of electricity, in kWh, produced from biogas or natural gas (including both RNG and non-renewable natural gas).

(4) Documents supporting the process heat source for production process and the amount of each source used in the production process in a given month.

(5) Records related to continuous measurement, including types of equipment used, metering process, maintenance and calibration records, and documents supporting adjustments related to error correction.

(6) Documents supporting the volume of electricity, in kWh, used by EGUs at the renewable electricity generation facility.

(7) Documents supporting RIN retirements for RNG used to produce renewable electricity.

(8) Information and documents supporting that the renewable electricity was produced from biogas or RNG.

(9) Information and documents related to participation in any QAP program, including contracts between the renewable electricity generator and the QAP provider, records related to verification activities under the QAP, and copies of any QAP-related submissions.

(10) Copies of any applicable air permits over the past 5 years issued by EPA, a state, a local air pollution control agency, or a foreign governmental agency that governs the renewable electricity generation facility.

(d) *RERGs.* In addition to the records required under paragraph (a) of this section, a RERG must keep all the following records:

(1) Records related to the generation and assignment of RINs, including all the following information:

(i) Batch volume.

(ii) Batch number.

(iii) Production date when RINs were assigned to the renewable electricity.

(iv) Documents demonstrating the make, model, model year, and trim of all

vehicles in the RERG's fleet included in RIN generation under § 80.135.

(v) Documentation of any calculation relied upon for RIN generation.

(vi) Documentation describing how the RERG allocated renewable electricity used to generate RINs by facility, D code, and verification status.

(vii) Contracts, PTDs, affidavits, agreements required under this part, and all other commercial documents with any renewable electricity generator.

(viii) Copies of renewable electricity data received from any renewable electricity generator.

(2) All documents specified in § 80.1454(b), as applicable.

(3) Information and documentation related to participation in any QAP program, including contracts between the RERG and the QAP provider, records related to verification activities under the QAP, and copies of any QAP-related submissions.

(4) All documents supporting the values used in the calculations in § 80.135(c)(1)(i).

(e) *RNG producers.* In addition to the records required under paragraph (a) of this section, an RNG producer must keep all the following records:

(1) Records related to the generation and assignment of RINs, including all the following information:

(i) Batch volume.

(ii) Batch number.

(iii) Production date when RINs were assigned to RNG.

(iv) Injection point into the natural gas commercial pipeline system.

(v) Volume of raw biogas, in Btu and scf, respectively, received at each RNG production facility.

(vi) Volume of RNG, in Btu and scf, produced at each RNG production facility.

(vii) Pipeline injection statements describing the volume of RNG, in Btu and scf, for each pipeline interconnect.

(2) Records related to each RIN transaction, separately for each transaction, including all the following information:

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

(ii) The parties involved in each transaction including the transferor, transferee, and any broker or agent.

(iii) The date of the transfer of the RINs.

(iv) Additional information related to details of the transaction and its terms.

(3) Documentation recording the transfer and sale of RNG, from the point of biogas production to the facility that sells or uses the fuel for transportation purposes.

(4) A copy of the RNG producer's Compliance Certification required under Title V of the Clean Air Act.

(5) Results of any laboratory analysis of chemical composition or physical properties.

(6) Process heat source for production process.

(7) Records related to continuous measurement, including types of equipment used, metering process, maintenance and calibration records, and documents supporting adjustments related to error correction.

(8) Information and documentation related to participation in any QAP program, including contracts between the RNG producer and the QAP provider, records related to verification activities under the QAP, and copies of any QAP-related submissions.

(9) For an RNG production facility that injects RNG at a pipeline interconnect that also has RNG injected from other sources, documents showing that RINs generated for the facility comply with § 80.140(b)(7).

(10) Summaries comparing raw biogas to treated biogas, including from certificates of analysis from independent laboratories and from meters on site.

(11) Documents supporting the amount of methane and other gases released into the atmosphere at the facility.

(f) *Biogas closed distribution system RIN generators.* In addition to the records required under paragraph (a) of this section, a biogas closed distribution system RIN generator must keep all the following records:

(1) Documentation demonstrating that the renewable CNG/LNG was produced from renewable biomass and qualifies to generate RINs under an approved pathway.

(2) Copies of any written contract for the sale or use of renewable CNG/LNG as transportation fuel, and copies of any affidavit from a party that sold or used the renewable CNG/LNG as transportation fuel.

(g) *RNG RIN separators.* In addition to the records required under paragraph (a) of this section, an RNG RIN separator must keep all the following records:

(1) Documentation indicating the volume of RNG, in Btu, withdrawn from the natural gas commercial distribution system.

(2) Documentation demonstrating that RNG withdrawn from the natural gas commercial distribution system was used to produce renewable CNG/LNG.

(3) Documentation indicating the volume of renewable CNG/LNG, in Btu, dispensed as transportation fuel from each dispensing location.

(4) Copies of all documentation required under § 80.140(d)(1)(iv), as applicable.

(h) *Renewable fuel producers that use biogas as a biointermediate or RNG as a feedstock.* In addition to the records required under paragraph (a) of this section, a renewable fuel producer that uses biogas as a biointermediate or RNG as a feedstock must keep all the following records:

(1) Documentation supporting the volume of renewable fuel produced from biogas used as a biointermediate or RNG that was used as a feedstock.

(2) For biogas, all the following additional information:

(i) Documentation supporting the volume of biogas, in Btu and scf, that was used as a biointermediate from each biointermediate production facility.

(ii) Copies of all applicable contracts over the past 5 years with each biointermediate producer.

(3) For RNG, all the following additional information:

(i) Documentation supporting the volume of RNG, in Btu, withdrawn from the natural gas commercial distribution system.

(ii) Documentation supporting the retirement of RINs for RNG used as a feedstock (*e.g.,* contracts, purchase orders, invoices).

(j) *RNG importers and non-RIN generating foreign RNG producers.* In addition to the records required under paragraph (a) of this section, an RNG importer or non-RIN generating foreign RNG producer must keep all the following records:

(1) Copies of all reports submitted under § 80.170(i)(2).

(2) [Reserved]

§ 80.160 Product transfer documents.

(a) *General requirements*—(1) *PTD contents.* On each occasion when any person transfers title of any biogas, renewable electricity data, or imported RNG without assigned RINs, the transferor must provide the transferee PTDs that include all the following information:

(i) The name, EPA-issued company and facility IDs, and address of the transferor.

(ii) The name, EPA-issued company and facility IDs, and address of the transferee.

(iii) The volume (in Btu for biogas and RNG and kWh for renewable electricity data) of the product being transferred by D code and verification status.

(iv) The location of the product at the time of the transfer.

(v) The date of the transfer.

(vi) Period of production.

(2) *Other PTD requirements.* A party must also include any applicable PTD

information required under § 80.1453 or 40 CFR part 1090, subpart L.

(b) *Additional PTD requirements for transfers of biogas.* In addition to the information required in paragraph (a) of this section, on each occasion when any person transfers title of biogas, the transferor must provide the transferee PTDs that include all the following information:

(1) An accurate and clear statement of the applicable designation of the biogas.

(2) If the biogas is designated as a biointermediate, any applicable requirement specified in § 80.1453(f).

(3) One of the following statements, as applicable:

(i) For biogas designated for use as renewable electricity, ''This volume of biogas is designated and intended for use to produce renewable electricity.''

(ii) For biogas designated for use to produce renewable CNG/LNG, ''This volume of biogas is designated and intended for use to produce renewable CNG/LNG.''

(iii) For biogas designated for use to produce RNG, ''This volume of biogas is designated and intended for use to produce renewable natural gas.''

(iv) For biogas designated for use as a biointermediate, the applicable language found at § 80.1453(f)(1)(vi).

(v) For biogas designated for use as process heat under § 80.1426(f)(12), ''This volume of biogas is designated and intended for use as process heat.''

(c) *PTD requirements for custodial transfers of RNG.* Whenever custody of RNG is transferred prior to injection into a pipeline interconnect (*e.g.,* via truck), the transferor must provide the transferee PTDs that include all the following information:

(1) The applicable information listed in paragraph (a)(1) of this section.

(2) The following statement, ''This volume of RNG is designated and intended for transportation use and may not be used for any other purpose.''

(d) *PTD requirements for imported RIN-less RNG.* Whenever custody of RIN-less RNG is transferred and ultimately imported into the covered location, the transferor must provide the transferee PTDs that include all the following information:

(1) The applicable information listed in paragraph (a)(1) of this section.

(2) The following statement, ''This volume of RNG is designated and intended for transportation use in the contiguous United States and may not be used for any other purpose.''

(3) The name, EPA-issued company and facility IDs, and address of the contracted RNG importer under § 80.170(e).

(4) The name, EPA-issued company and facility IDs, and address of the transferee.

§ 80.165 Sampling, testing, and measurement.

(a) *Biogas and RNG continuous measurement.* Any party required to continuously measure the volume of biogas or RNG under this subpart must use all the following:

(1) In-line GC meters compliant with ASTM D7164 (incorporated by reference, see § 80.3), including sections 9.2, 9.3, 9.4, 9.5, 9.7, 9.8, and 9.11 of ASTM D7164.

(2) Flow meters compliant with one of the following:

(i) API MPMS 14.3.1, API MPMS 14.3.2, API MPMS 14.3.3, and API MPMS 14.3.4 (incorporated by reference, see § 80.3).

(ii) API MPMS 14.12 (incorporated by reference, see § 80.3).

(b) *Biogas and RNG sampling and testing.* Any party required to sample and test biogas or RNG under this subpart must do so as follows:

(1) Collect representative samples of biogas or RNG using API MPMS 14.1 (incorporated by reference, see § 80.3).

(2) Perform all the following measurements on each representative sample:

(i) Methane, carbon dioxide, nitrogen, and oxygen using EPA Method 3C.

(ii) Hydrogen sulfide and total sulfur using ASTM D5504 (incorporated by reference, see § 80.3).

(iii) Siloxanes using ASTM D8230 (incorporated by reference, see § 80.3).

(iv) Moisture using ASTM D4888 (incorporated by reference, see § 80.3).

(v) Hydrocarbon analysis using EPA Method 18.

(vi) Heating value and relative density using ASTM D3588 (incorporated by reference, see § 80.3).

(vii) Additional components specified in pipeline specifications or specified by EPA as a condition of registration under § 80.145 or § 80.1450.

(viii) Carbon-14 analysis using ASTM D6866 (incorporated by reference, see § 80.3).

(c) *Renewable electricity.* Any party required to continuously measure the volume of renewable electricity under this subpart must use ANSI C12.20 (incorporated by reference, see § 80.3).

(d) *Digester feedstock.* Any party required to measure total solids and volatile solids of a digester feedstock under this subpart must use Part G of SM 2540 (incorporated by reference, see § 80.3).

(e) *Third parties.* Samples required to be obtained under this subpart may be collected and analyzed by third parties.

§ 80.170 RNG importers and foreign biogas producers, RNG producers, renewable electricity generators, and RERGs.

(a) *Applicability.* The provisions of this section apply to any RNG importer or any foreign party subject to requirements of this subpart outside the United States.

(b) *General requirements.* Any foreign party must meet all the following requirements:

(1) *Letter from RCO.* The foreign party must provide a letter signed by the RCO that commits the foreign party to the applicable provisions specified in § 80.170(b)(4) and (c) as part of their registration under § 80.145.

(2) *Bond posting.* A foreign party that generates RINs must meet the requirements of § 80.1466(h).

(3) *Foreign RIN owners.* A foreign party that owns RINs must meet the requirements of § 80.1467, including any foreign party that separates or retires RINs under § 80.140.

(4) *Foreign party commitments.* Any foreign party must commit to the following provisions as a condition of being registered as a foreign party under this subpart:

(i) Any EPA inspector or auditor must be given full, complete, and immediate access to conduct inspections and audits of all facilities subject to this subpart.

(A) Inspections and audits may be either announced in advance by EPA, or unannounced.

(B) Access will be provided to any location where:

(*1*) Biogas, RNG, biointermediate, or biogas-derived renewable fuel is produced.

(*2*) Documents related to the foreign party operations are kept.

(*3*) Any product subject to this subpart (*e.g.,* biogas, RNG, biointermediates, or biogas-derived renewable fuel) that is stored or transported outside the United States between the foreign party's facility and the point of importation into the United States, including storage tanks, vessels, and pipelines.

(C) EPA inspectors and auditors may be EPA employees or contractors to EPA.

(D) Any documents requested that are related to matters covered by inspections and audits must be provided to an EPA inspector or auditor on request.

(E) Inspections and audits may include review and copying of any documents related to the following:

(*1*) The volume or properties of any product subject to this subpart produced or delivered to a renewable fuel production facility.

(*2*) Transfers of title or custody to the any product subject to this subpart.

(*3*) Work performed and reports prepared by independent third parties and by independent auditors under the requirements of this subpart, including work papers.

(*4*) Records required under § 80.155.

(*5*) Any records related to claims made during registration.

(F) Inspections and audits by EPA may include interviewing employees.

(G) Any employee of the foreign party must be made available for interview by the EPA inspector or auditor, on request, within a reasonable time period.

(H) English language translations of any documents must be provided to an EPA inspector or auditor, on request, within 10 business days.

(I) English language interpreters must be provided to accompany EPA inspectors and auditors, on request.

(ii) An agent for service of process located in the District of Columbia will be named, and service on this agent constitutes service on the foreign party or any employee of the party for any action by EPA or otherwise by the United States related to the requirements of this subpart.

(iii) The forum for any civil or criminal enforcement action related to the provisions of this subpart for violations of the Clean Air Act or regulations promulgated thereunder are governed by the Clean Air Act, including the EPA administrative forum where allowed under the Clean Air Act.

(iv) United States substantive and procedural laws apply to any civil or criminal enforcement action against the foreign party or any employee of the foreign party related to the provisions of this subpart.

(v) Applying to be an approved foreign party under this subpart, or producing or exporting any product subject to this subpart under such approval, and all other actions to comply with the requirements of this subpart relating to such approval constitute actions or activities covered by and within the meaning of the provisions of 28 U.S.C. 1605(a)(2), but solely with respect to actions instituted against the foreign party, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign party under this subpart, including conduct that violates the False Statements Accountability Act of 1996 (18 U.S.C. 1001) and section 113(c)(2) of the Clean Air Act (42 U.S.C. 7413).

(vi) The foreign party, or its agents or employees, will not seek to detain or to impose civil or criminal remedies against EPA inspectors or auditors for actions performed within the scope of EPA employment or contract related to the provisions of this subpart.

(vii) In any case where a product produced at a foreign facility is stored or transported by another company between the foreign facility and the point of importation to the United States, the foreign party must obtain from each such other company a commitment that meets the requirements specified in paragraphs (b)(4)(i) through (vi) of this section before the product is transported to the United States, and these commitments must be included in the foreign party's application to be a registered foreign party under this subpart.

(c) *Sovereign immunity.* By submitting an application to be a registered foreign party under this subpart, or by producing or exporting any product subject to this subpart to the United States under such registration, the foreign party, and its agents and employees, without exception, become subject to the full operation of the administrative and judicial enforcement powers and provisions of the United States without limitation based on sovereign immunity, with respect to actions instituted against the party, its agents and employees in any court or other tribunal in the United States for conduct that violates the requirements applicable to the foreign party under this subpart, including conduct that violates the False Statements Accountability Act of 1996 (18 U.S.C. 1001) and section 113(c)(2) of the Clean Air Act (42 U.S.C. 7413).

(d) *English language reports.* Any document submitted to EPA by a foreign party must be in English, or must include an English language translation.

(e) *Foreign RNG producer contractual relationship.* A non-RIN generating foreign RNG producer must establish a contractual relationship with an RNG importer, prior to the sale of RIN-less RNG.

(g) *Withdrawal or suspension of registration.* EPA may withdraw or suspend a foreign party's registration where any of the following occur:

(1) The foreign party fails to meet any requirement of this subpart.

(2) The foreign government fails to allow EPA inspections or audits as provided in paragraph (c)(1) of this section.

(3) The foreign party asserts a claim of, or a right to claim, sovereign immunity in an action to enforce the requirements in this subpart.

(4) The foreign party fails to pay a civil or criminal penalty that is not satisfied using the bond required under paragraph (b)(2) of this section.

(h) *Additional requirements for applications, reports, and certificates.* Any application for registration as a foreign party, or any report, certification, or other submission required under this subpart by the foreign party, must be:

(1) Submitted using formats and procedures specified by EPA.

(2) Signed by the RCO of the foreign party's company.

(3) Contain the following declarations:

(i) *Certification.*

''I hereby certify:

That I have actual authority to sign on behalf of and to bind [NAME OF FOREIGN PARTY] with regard to all statements contained herein.

That I am aware that the information contained herein is being Certified, or submitted to the United States Environmental Protection Agency, under the requirements of 40 CFR part 80, subparts E and M, and that the information is material for determining compliance under these regulations.

That I have read and understand the information being Certified or submitted, and this information is true, complete, and correct to the best of my knowledge and belief after I have taken reasonable and appropriate steps to verify the accuracy thereof.''

(ii) *Affirmation.*

''I affirm that I have read and understand the provisions of 40 CFR part 80, subparts E and M, including 40 CFR 80.170, 80.1466, and 80.1467 apply to [NAME OF FOREIGN PARTY]. Pursuant to Clean Air Act section 113(c) and 18 U.S.C. 1001, the penalty for furnishing false, incomplete, or misleading information in this certification or submission is a fine of up to $10,000 U.S., and/or imprisonment for up to five years.''

(i) *Requirements for RNG importers.* An RNG importer must meet all the following requirements:

(1) For each imported batch of RNG, the RNG importer must have an independent third party that meets the requirements of § 80.1450(b)(2)(i) and (ii) do all the following:

(i) Determine the volume of RNG, in Btu, injected into the natural gas commercial pipeline system as specified in § 80.165.

(ii) Determine the name and EPA-assigned company and facility identification numbers of the foreign non-RIN generating RNG producer that produced the RNG.

(2) The independent third party must submit reports to the foreign non-RIN generating RNG producer and the RNG importer within 30 days following the

date the RNG was injected into a natural gas commercial pipeline system for import into the United States containing all the following:

(i) The statements specified in paragraph (h) of this section.

(ii) The name of the foreign non-RIN generating RNG producer, containing the information specified in paragraph (h) of this section, and including the identification of the natural gas commercial pipeline system terminal at which the product was offloaded.

(iii) PTDs showing the volume of RNG, in Btu, transferred from the foreign non-RIN generating RNG producer to the RNG importer.

(3) The RNG importer and the independent third party must keep records of the audits and reports required under paragraphs (i)(1) and (2) of this section for five years from the date of creation.

§ 80.175 Attest engagements.

(a) *General provisions.* (1) The following parties must arrange for annual attestation engagement using agreed-upon procedures:

(i) Biogas producers.

(ii) Renewable electricity generators.

(iii) RERGs.

(iv) RNG producers.

(v) RNG importers.

(vi) Biogas closed distribution system RIN generators.

(vii) RNG RIN separators.

(viii) Renewable fuel producers that use RNG as a feedstock.

(2) The auditor performing attestation engagements required under this subpart must meet the requirements in 40 CFR 1090.1800(b).

(3) The auditor must perform attestation engagements separately for each biogas production facility, RNG production facility, renewable electricity generation facility, and renewable fuel production facility, as applicable.

(4) Except as otherwise specified in this section, attest auditors may use the representative sampling procedures specified in 40 CFR 1090.1805.

(5) Except as otherwise specified in this section, attest auditors must prepare and submit the annual attestation engagement following the procedures specified in 40 CFR 1090.1800(d).

(b) *General procedures for biogas producers.* An attest auditor must conduct annual attestation audits for biogas producers using the following procedures:

(1) *Registration and EPA reports.* The auditor must review registration and EPA reports as follows:

(i) Obtain copies of the biogas producer's registration information submitted under §§ 80.145 and 80.1450 and all reports submitted under §§ 80.150 and 80.1451.

(ii) For each biogas production facility, confirm that the facility's registration is accurate based on the activities reported during the compliance period and confirm any related updates were completed prior to conducting regulated activities at the facility and report as a finding any exceptions.

(iii) Report the date of the last engineering review conducted under §§ 80.145(b)(3) and 80.1450(b), as applicable. Report as a finding if the last engineering review is outside of the schedule specified in § 80.1450(d)(3)(ii).

(iv) Confirm that the biogas producer submitted all reports required under §§ 80.150 and 80.1451 for activities performed during the compliance period and report as a finding any exceptions.

(2) *Measurement method review.* The auditor must review measurement methods as follows:

(i) Obtain records related to measurement under § 80.155(a)(1)(vi).

(ii) Identify and report the name of the method(s) used for measuring the volume of biogas, in Btu and in scf, and report as a finding any method that is not specified in § 80.165 or the biogas producer's registration.

(iii) Identify whether maintenance and calibration records were kept and report as a finding if no records were obtained.

(3) *Listing of batches.* The auditor must review listings of batches as follows:

(i) Obtain the batch reports submitted under § 80.150.

(ii) Compare the reported volume for each batch to the measured volume and report as a finding any exceptions.

(4) *Testing of biogas transfers.* The auditor must review biogas transfers as follows:

(i) Obtain the associated PTD for each batch of biogas produced during the compliance period.

(ii) Using the batch number, confirm that the correct PTD is obtained for each batch and compare the volume, in Btu and scf, on each batch report to the associated PTD and report as a finding any exceptions.

(iii) Confirm that the PTD associated with each batch contains all applicable language requirements under § 80.160 and report as a finding any exceptions.

(c) *General procedures for renewable electricity generators.* An attest auditor must conduct annual attestation audits for renewable electricity generators using the following procedures:

(1) *Registration and EPA reports.* The auditor must review registration and EPA reports as follows:

(i) Obtain copies of the renewable electricity generator's registration information submitted under § 80.145 and all reports submitted under § 80.150.

(ii) For each renewable electricity generation facility, confirm that the facility's registration is accurate based on the activities reported during the compliance period and confirm any related updates were completed prior to conducting regulated activities at the facility and report as a finding any exceptions.

(iii) Report the date of the last engineering review conducted under § 80.145(b)(3). Report as a finding if the last engineering review is outside of the schedule specified in § 80.1450(d)(3)(ii).

(iv) Confirm that the renewable electricity generator submitted all reports required under § 80.150 for activities performed during the compliance period and report as a finding any exceptions.

(2) *Feedstock received.* The auditor must perform an inventory of biogas or RNG received as follows:

(i) Obtain copies of records documenting the source and volume of biogas or RNG, in Btu and scf, received by the renewable electricity generator. Report the number of parties the renewable electricity generator received biogas or RNG from and the total volume of biogas or RNG, in Btu and scf, received separately from each party.

(ii) Obtain copies of records showing the volume of biogas or RNG, in Btu and scf, used to produce renewable electricity. Report as a finding the total volume of biogas or RNG, in Btu and scf, used to produce renewable electricity.

(iii) Obtain copies of records showing whether non-renewable feedstocks were used to produce renewable electricity. Report as a finding if any RINs were generated for electricity produced from the non-renewable feedstocks.

(3) *Measurement method review.* The auditor must review measurement methods as follows:

(i) Obtain records related to measurement under § 80.155(a)(1)(vi).

(ii) Identify and report the name of the method(s) used for measuring the volume of renewable electricity, in kWh, and report as a finding any method that is not specified in § 80.165 or the renewable electricity generator's registration.

(iii) Identify whether maintenance and calibration records were kept and report as a finding if no records were obtained.

(4) *Listing of batches.* The auditor must review listings of batches as follows:

(i) Obtain the batch reports submitted under § 80.150.

(ii) Compare the reported volume for each batch to the measured volume and report as a finding any exceptions.

(5) *Testing of renewable electricity data transfers.* The auditor must review renewable electricity data transfers as follows:

(i) Obtain the associated PTD for each batch of renewable electricity produced during the compliance period.

(ii) Using the batch number, confirm that the correct PTD is obtained for each batch and compare the volume, in kWh, on each batch report to the associated PTD and report as a finding any exceptions.

(iii) Confirm that the PTD associated with each batch contains all applicable language requirements under § 80.160 and report as a finding any exceptions.

(5) *Renewable electricity batches from RNG.* If RNG was used to produce renewable electricity, the auditor must review renewable electricity batches as follows:

(i) Obtain copies of records demonstrating the number and types of RINs retired for RNG under § 80.140(e).

(ii) Verify that the proper volume of renewable electricity was produced under § 80.110(k)(3) for each batch as follows:

(A) Calculate the total volume of renewable electricity the renewable electricity generator is eligible to produce for the month using the equations in § 80.110(k)(3). Compare this value to the batch report and report as a finding any difference.

(B) Calculate the maximum volume of renewable electricity the renewable electricity generator is eligible to produce for the month using the equations in § 80.110(k)(3). Compare this value to the batch report and report as a finding if the maximum volume of renewable electricity was less than the volume of renewable electricity produced.

(d) *General procedures for RERGs.* An attest auditor must conduct annual attestation audits for RERGs using the following procedures:

(1) *Registration and EPA reports.* The auditor must review registration and EPA reports as follows:

(i) Obtain copies of the RERG's registration information submitted under § 80.145 and all reports submitted under § 80.150.

(ii) Confirm that the RERG's registration is accurate based on the activities reported during the compliance period and that any required updates were completed prior to conducting regulated activities and report as a finding any exceptions.

(iii) Confirm that the RERG submitted all reports required under §§ 80.150 and 80.1451 for activities performed during the compliance period and report as a finding any exceptions.

(2) *Renewable electricity RIN generation.* The auditor must perform the following procedures for quarterly RIN generation:

(i) Obtain copies of all the following:

(A) PTDs containing the renewable electricity data provided to the RERG under § 80.160(a)(1)(iii).

(B) Records used to calculate the RERG's fleet under §§ 80.150(d)(2)(i) and (iii).

(C) Records used to calculate the electric range of PHEVs by make, model, model year, and trim under § 80.150(d)(2)(ii).

(D) RIN generation information submitted under § 80.1452.

(ii) Using the values obtained in paragraph (d)(2)(i) of this section, verify that the proper number of RINs were generated under § 80.135 for each batch as follows:

(A) Calculate the total number of RINs the RERG is eligible to generate for the quarter using the equations in § 80.135(c)(1). Compare this value to the number of RINs the RERG generated for the quarter and report as a finding any difference.

(B) Calculate the maximum number of RINs the RERG is eligible to generate for the quarter using the equations in § 80.135(c)(2). Compare this value to the number of RINs the RERG generated for the quarter and report as a finding if the maximum number of RINs was less than the number of RINs generated.

(e) *General procedures for RNG producers and importers.* An attest auditor must conduct annual attestation audits for RNG producers and importers using the following procedures, as applicable:

(1) *Registration and EPA reports.* The auditor must review registration and EPA reports as follows:

(i) Obtain copies of the RNG producer or importer's registration information submitted under §§ 80.145 and 80.1450 and all reports submitted under §§ 80.150 and 80.1451.

(ii) For each RNG production facility, confirm that the facility's registration is accurate based on the activities reported during the compliance period and confirm any related updates were completed prior to conducting regulated activities at the facility and report as a finding any exceptions.

(iii) Report the date of the last engineering review conducted under §§ 80.145(b)(3) and 80.1450(b), as applicable. Report as a finding if the last engineering review is outside of the schedule specified in § 80.1450(d)(3)(ii).

(iv) Confirm that the RNG producer or importer submitted all reports required under §§ 80.150 and 80.1451 for activities performed during the compliance period and report as a finding any exceptions.

(2) *Feedstock received.* The auditor must perform an inventory of biogas received as follows:

(i) Obtain copies of records documenting the source and volume of biogas, in Btu and scf, received by the RNG producer. Report the number of parties the RNG producer received biogas from and the total volume received separately from each party.

(ii) Obtain copies of records showing the volume of biogas, in Btu and scf, used to produce RNG. Report the total volume of biogas used to produce RNG, in Btu and scf, and report as a finding if the volume of RNG is greater than the volume of biogas.

(iii) Obtain copies of records showing whether non-renewable components were blended into RNG. Report as a finding if any RINs were generated for the non-renewable components of the blended batch.

(3) *Measurement method review.* The auditor must review measurement methods as follows:

(i) Obtain records related to measurement under § 80.155(a)(1)(vi).

(ii) Identify and report the name of the method(s) used for measuring the volume of RNG, in Btu and in scf, and report as a finding any method that is not specified in § 80.165 or the RNG producer's registration.

(iii) Identify whether maintenance and calibration records were kept and report as a finding if no records were obtained.

(4) *Listing of batches.* The auditor must review listings of batches as follows:

(i) Obtain the batch reports submitted under § 80.150.

(ii) Compare the reported volume for each batch to the measured volume and report as a finding any exceptions.

(iii) Report as a finding any batches with reported values that did not meet pipeline specifications.

(5) *Testing of RNG transfers.* The auditor must review RNG transfers as follows:

(i) Obtain the associated PTD for each batch of RNG produced or imported during the compliance period.

(ii) Using the batch number, confirm that the correct PTD is obtained for each batch and compare the volume, in Btu and scf, on each batch report to the

associated PTD and report as a finding any exceptions.

(iii) Confirm that the PTD associated with each batch contains all applicable language requirements under § 80.160 and report as a finding any exceptions.

(6) *RNG RIN generation.* The auditor must perform the following procedures for monthly RIN generation:

(i) Obtain the RIN generation reports submitted under § 80.1451.

(ii) Compare the number of RINs generated for each batch to the batch report and report as a finding any exceptions.

(f) *General procedures for biogas closed distribution system RIN generators.* An attest auditor must conduct annual attestation audits for biogas closed distribution system RIN generators using the following procedures:

(1) *Registration and EPA reports.* The auditor must review registration and EPA reports as follows:

(i) Obtain copies of the biogas closed distribution system RIN generator's registration information submitted under § 80.145 and all reports submitted under § 80.150.

(ii) Confirm that the biogas closed distribution system RIN generator's registration is accurate based on the activities reported during the compliance period and that any required updates were completed prior to conducting regulated activities and report as a finding any exceptions.

(iii) Confirm that the biogas closed distribution system RIN generator submitted all reports required under §§ 80.150 and 80.1451 for activities performed during the compliance period and report as a finding any exceptions.

(2) *RIN generation.* The auditor must complete all applicable requirements specified in § 80.1464.

(g) *General procedures for RNG RIN separators.* An attest auditor must conduct annual attestation audits for RNG RIN separators using the following procedures:

(1) *Registration and EPA reports.* The auditor must review registration and EPA reports as follows:

(i) Obtain copies of the RNG RIN separator's registration information submitted under §§ 80.145 and 80.1450 and all reports submitted under §§ 80.150 and 80.1451.

(ii) Confirm that the RNG RIN separator's registration is accurate based on the activities reported during the compliance period and that any required updates were completed prior to conducting regulated activities and report as a finding any exceptions.

(iii) Confirm that the RNG RIN separator submitted all reports required under §§ 80.150 and 80.1451 for activities performed during the compliance period and report as a finding any exceptions.

(2) *RIN separation events.* The auditor must review records supporting RIN separation events as follows:

(i) Obtain records required under § 80.155(g).

(ii) Compare the volume of RNG, in Btu, withdrawn from the natural gas commercial distribution system to the reported volume of RNG, in Btu, used to produce the renewable CNG/LNG.

(iii) Compare the volume of CNG/LNG sold or used as transportation fuel to the reported volume of CNG/LNG separated from RINs.

(iv) Report as a finding if the volume of CNG/LNG sold or used as transportation fuel does not match the volume of CNG/LNG separated from RINs.

(3) *RIN owner.* The auditor must complete all requirements specified in § 80.1464(c).

(h) *General procedures for renewable fuel producers that use RNG as a feedstock.* An attest auditor must conduct annual attestation audits for renewable fuel producers that use RNG as a feedstock using the following procedures:

(1) *Registration and EPA reports.* The auditor must review registration and EPA reports as follows:

(i) Obtain copies of the renewable fuel producer's registration information submitted under § 80.145 and all reports submitted under § 80.150.

(ii) Confirm that the renewable fuel producer's registration is accurate based on the activities reported during the compliance period and that any required updates were completed prior to conducting regulated activities and report as a finding any exceptions.

(iii) Confirm that the renewable fuel producers submitted all reports required under §§ 80.150 and 80.1451 for activities performed during the compliance period and report as a finding any exceptions.

(2) *RIN retirements.* The attest auditor must review RIN retirements as follows:

(i) Obtain copies of all the following:

(A) RIN retirement reports submitted under §§ 80.150(h) and 80.1452.

(B) Records related to measurement under § 80.155(a)(1)(vi).

(ii) Compare the measured volume of RNG used as a feedstock to the reported number of RINs retired for RNG.

(iii) Report as a finding if the measured volume of RNG used as a feedstock does not match the number of RINs retired for RNG.

§ 80.180 Quality assurance program.

(a) *General requirements.* This section specifies the requirements for QAPs related to the verification of RINs generated for RNG and biogas-derived renewable fuel.

(1) For the generation of Q–RINs for RNG or biogas-derived renewable fuel, the same independent third-party auditor must verify each party as follows:

(i) For RNG, all the RNG production facilities that inject into the same pipeline interconnect and all the biogas production facilities that provide feedstock to those RNG production facilities.

(ii) For renewable electricity produced in a biogas closed distribution system, the biogas producer, the renewable electricity generator, and the RERG.

(iii) For renewable electricity produced from RNG, the renewable electricity generator and the RERG.

(iv) For renewable CNG/LNG produced from RNG, the biogas producer and the RNG producer.

(v) For renewable CNG/LNG produced from biogas in a biogas closed distribution system, the biogas producer, the biogas closed distribution system RIN generator, and any party deemed necessary by EPA to ensure that the renewable CNG/LNG was used as transportation fuel.

(vi) For biogas-derived renewable fuel produced from biogas used as a biointermediate, the biogas producer, the producer of the biogas-derived renewable fuel, and any other party deemed necessary by EPA to ensure that the biogas-derived renewable fuel was produced under an approved pathway and used as transportation fuel.

(vii) For biogas-derived renewable fuel produced from RNG used as a feedstock, the producer of the biogas-derived renewable fuel and any other party deemed necessary by EPA to ensure that the biogas-derived renewable fuel was produced under an approved pathway and used as transportation fuel.

(2) Independent third-party auditors that verify RINs generated under this subpart must meet the requirements in § 80.1471(a) through (c) and (g) through (h).

(3) QAPs approved by EPA to verify RINs generated under this subpart must meet the requirements in § 80.1469(c) through (f), as applicable.

(4) Independent third-party auditors must conduct quality assurance audits at biogas production facilities, RNG production facilities, renewable electricity generation facilities, renewable fuel production facilities, and

any facility or location deemed necessary by EPA to ensure that the biogas-derived renewable fuel was produced under an approved pathway and used as transportation fuel, heating oil, or jet fuel as specified in § 80.1472(a) and (b)(3), as applicable.

(5) Independent third-party auditors must ensure that mass and energy balances performed under § 80.1469(c)(2) are consistent between facilities that are audited as part of the same chain.

(b) *Requirements for biogas producers.* In addition to the elements verified under § 80.1469(c) through (f), the independent third-party auditor must do all the following at each biogas production facility:

(1) Verify that the measurement of biogas is consistent with the requirements in § 80.165.

(2) Verify that the PTDs for biogas transfers are consistent with the applicable PTD requirements in §§ 80.160 and 80.1453.

(c) *Requirements for RNG producers.* In addition to the elements verified under § 80.1469(c) through (f), the independent third-party auditor must do all the following at each RNG production facility:

(1) Verify that the sampling, testing, and measurement of RNG is consistent with the requirements in § 80.165.

(2) Verify that RINs were assigned consistent with § 80.140(c).

(3) Verify that RINs were separated and retired consistent with § 80.140(d) and (e), respectively.

(4) Verify that the RNG was injected into a natural gas commercial pipeline system.

(5) Verify that RINs were not generated on non-renewable components added to RNG prior to injection into a natural gas commercial pipeline system.

(d) *Requirements for renewable electricity generators.* In addition to the elements verified under § 80.1469(c) through (f), the independent third-party auditor must do all the following at each renewable electricity generation facility:

(1) Verify that the measurement of renewable electricity is consistent with the requirements in § 80.165(c).

(2) Verify that RIN generation agreement is contracted consistent with the requirements in § 80.135(a)(1).

(3) Verify that the renewable electricity was only produced from biogas or RNG consistent with an approved pathway.

(4) Verify that the renewable electricity data is consistent with the volume specified on the PTD to the RERG under § 80.160(c).

(5) Verify that the renewable electricity generator retired RINs for RNG used to produce renewable electricity consistent with § 80.140(e).

(e) *Requirements for RERGs.* The independent third-party auditor must verify that each input in the equations in § 80.135 is properly calculated.

(f) *Requirements for renewable fuel producers using biogas as a biointermediate.* The independent third-party auditor must meet all requirements specified in paragraph (b) of this section and § 80.1477.

(g) *Responsibility for replacement of invalid verified RINs.* The generator of RINs for RNG or a biogas-derived renewable fuel, and the obligated party that owns the Q–RINs, are required to replace invalidly generated Q–RINs with valid RINs as specified in § 80.1431(b).

§ 80.185 Prohibited acts and liability provisions.

(a) *Prohibited acts.* (1) It is a prohibited act for any person to act in violation of this subpart or fail to meet a requirement that applies to that person under this subpart.

(2) No person may cause another person to commit an act in violation of this subpart.

(b) *Liability provisions*—(1) *General.* (i) Any person who commits any prohibited act or requirement in this subpart is liable for the violation.

(ii) Any person who causes another person to commit a prohibited act under this subpart is liable for that violation.

(iii) Any parent corporation is liable for any violation committed by any of its wholly-owned subsidiaries.

(iv) Each partner to a joint venture, or each owner of a facility owned by two or more owners, is jointly and severally liable for any violation of this subpart that occurs at the joint venture facility or facility owned by the joint owners, or any violation of this subpart that is committed by the joint venture operation or any of the joint owners of the facility.

(v) Any person listed in paragraphs (b)(2) through (5) of this section is liable for any violation of any prohibition under paragraph (a) of this section or failure to meet a requirement of any provision of this subpart regardless of whether the person violated or caused the violation unless the person establishes an affirmative defense under § 80.190.

(vi) The liability provisions of § 80.1461 also apply to any person subject to the provisions of this subpart.

(2) *Biogas liability.* When biogas is found in violation of a prohibition specified in paragraph (a) of this section or § 80.1460, the following persons are deemed in violation:

(i) The biogas producer that produced the biogas.

(ii) Any RNG producer that used the biogas to produce RNG.

(iii) Any biointermediate producer that used the biogas or RNG produced from the biogas to produce a biointermediate.

(iv) Any person that used the biogas, RNG produced from the biogas, or biointermediate produced from the biogas or RNG to produce a biogas-derived renewable fuel.

(v) Any person that generated a RIN from a biogas-derived renewable fuel produced from the biogas, RNG produced from the biogas, or biointermediate produced from the biogas.

(3) *RNG liability.* When RNG is found in violation of a prohibition specified in paragraph (a) of this section or § 80.1460, the following persons are deemed in violation:

(i) The biogas producer that produced the biogas used to produce the RNG.

(ii) The RNG producer that produced the RNG.

(iii) Any biointermediate producer that used the RNG to produce a biointermediate.

(iv) Any person that used the RNG or biointermediate produced from the RNG to produce a biogas-derived renewable fuel.

(v) Any person that generated a RIN from a biogas-derived renewable fuel produced from the RNG or biointermediate produced from the RNG.

(4) *Renewable electricity liability.* When renewable electricity is found in violation of a prohibition specified in paragraph (a) of this section or § 80.1460, the following persons are deemed in violation:

(i) Any biogas producer that produced the biogas used to generate the renewable electricity.

(ii) Any RNG producer that produced RNG used to produce renewable electricity.

(iii) The renewable electricity generator that generated the renewable electricity.

(iv) Any RERG that generated a RIN from the renewable electricity.

(5) *RINs generated for renewable electricity liability.* When RINs generated for renewable electricity are found in violation of a prohibition specified in paragraph (a) of this section or § 80.1460, the following persons are deemed in violation:

(i) Any biogas producer that produced the biogas used to generate the renewable electricity for which the RINs were generated.

(ii) Any RNG producer that produced RNG used to produce renewable

electricity for which the RINs were generated.

(iii) Any renewable electricity generator that generated the renewable electricity for which the RINs were generated.

(iv) The RERG that generated the RIN.

(6) *Third-party liability.* Any party allowed under § 80.165(e) to act on behalf of a regulated party and does so to demonstrate compliance with the requirements of this subpart must meet those requirements in the same way that the regulated party must meet those requirements. The regulated party and the third party are both liable for any violations arising from the third party's failure to meet the requirements of this subpart.

§ 80.190 Affirmative defense provisions.

(a) *Applicability.* A person may establish an affirmative defense to a violation that person is liable for under § 80.185(b) if that person satisfies all applicable elements of an affirmative defense in this section.

(1) No person that generates a RIN for biogas-derived renewable fuel may establish an affirmative defense under this section.

(2) A person that is a biogas producer may not establish an affirmative defense under this section for a violation that the biogas producer is liable for under § 80.185(b)(1) and (2).

(3) A person that is an RNG producer may not establish an affirmative defense under this section for a violation that the RNG producer is liable for under § 80.185(b)(1) and (3).

(4) A person that is a renewable electricity generator may not establish an affirmative defense under this section for a violation that the renewable electricity generator is liable for under § 80.185(b)(1) and (4).

(b) *General elements.* A person may only establish an affirmative defense under this section if the person meets all of the following requirements:

(1) The person, or any of the person's employees or agents, did not cause the violation.

(2) The person did not know or have reason to know that the biogas, RNG, renewable electricity, or RINs were in violation of a prohibition or requirement under this subpart.

(3) The person must have had no financial interest in the company that caused the violation.

(4) If the person self-identified the violation, the person notified EPA within five business days of discovering the violation.

(5) The person must submit a written report to the EPA including all pertinent supporting documentation, demonstrating that the applicable elements of this section were met within 30 days of the person discovering the invalidity.

(c) *Biogas producer elements.* In addition to the elements in paragraph (b) of this section, a biogas producer must also meet all the following requirements to establish an affirmative defense:

(1) The biogas producer conducted or arranged to be conducted a QAP that includes, at a minimum, a periodic sampling and testing program adequately designed to ensure their biogas meets the applicable requirements to produce biogas under this part.

(2) The biogas producer had all affected biogas verified by a third-party auditor under an approved QAP under §§ 80.180 and 80.1469.

(3) The PTDs for the biogas indicate that the biogas was in compliance with the applicable requirements while in the biogas producer's control.

(d) *RNG producer elements.* In addition to the elements in paragraph (b) of this section, an RNG producer must also meet all the following requirements to establish an affirmative defense:

(1) The RNG producer conducted or arranged to be conducted a QAP that includes, at a minimum, a periodic sampling and testing program adequately designed to ensure that the biogas used to produce their RNG meets the applicable requirements to produce biogas under this part and that their RNG meets the applicable requirements to produce RNG under this part.

(2) The RNG producer had all affected biogas and RNG verified by a third-party auditor under an approved QAP under §§ 80.180 and 80.1469.

(3) The PTDs for the biogas used to produce their RNG and for their RNG indicate that the biogas and RNG were in compliance with the applicable requirements while in the RNG producer's control.

(e) *Renewable electricity generator elements.* In addition to the elements in paragraph (b) of this section, a renewable electricity generator must also meet all the following requirements to establish an affirmative defense:

(1) The renewable electricity generator conducted or arranged to be conducted a QAP that includes, at a minimum, a periodic sampling and testing program adequately designed to ensure that the biogas or RNG used to generate their renewable electricity meets the applicable requirements to produce biogas or RNG under this part.

(2) The renewable electricity generator only generated renewable electricity from biogas or RNG verified by a third-party auditor under an approved QAP under §§ 80.180 and 80.1469.

(3) The PTDs for the biogas or RNG used to produce their renewable electricity indicate that the biogas or RNG was in compliance with the applicable requirements.

§ 80.195 Potentially invalid RINs.

(a) *Identification and treatment of potentially invalid RINs (PIRs).* (1) Any RIN can be identified as a PIR by the RIN generator, an independent third-party auditor that verified the RIN, or EPA.

(2) Any party listed in paragraph (a)(1) of this section must use the procedures specified in § 80.1474(b) for identification and treatment of PIRs and retire any PIRs under § 80.1434(a), as applicable.

(b) *Potentially inaccurate or non-qualifying volumes of biogas-derived renewable fuel.* (1) Any party that becomes aware of potentially inaccurate or non-qualifying volumes of biogas-derived renewable fuel must notify the next party in the production chain within 5 business days.

(i) Biointermediate producers must notify the renewable fuel producer receiving the biointermediate within 5 business days.

(ii) If the volume of biogas-derived renewable fuel was audited under § 80.180, the party must notify the independent third-party auditor within 5 business days.

(iii) Non-RIN generating foreign RNG producers must follow the requirements of this section and notify the importer generating RINs and other parties in the production chain, as applicable.

(iv) Each notified party must notify EPA within 5 business days.

(2) Any party that is notified of inaccurate or non-qualifying volumes of biogas-derived renewable fuel under paragraph (b)(1) of this section must correct affected volumes of biogas-derived renewable fuel under paragraph (a)(2) of this section, as applicable.

(3) Any notified party that generates RINs must use the procedures specified in § 80.1474(b) for identification and treatment of PIRs and retire any PIRs under § 80.1434(a), as applicable.

(c) *Potentially inaccurate volumes of renewable electricity.* (1) When a renewable electricity generator becomes aware of inaccurate quantities of renewable electricity produced and transferred to the RERG, the renewable electricity generator must notify EPA and the RERG within 5 business days of initial discovery.

(2) The RERG must then calculate any impacts to the number of RINs generated for the volume of impacted renewable electricity. The RERG must then notify EPA and the independent third-party auditor, if any, within 5 business days of initial notification.

(3) For any number of RINs over-generated based off the inaccurate volumes of renewable electricity, the RERG must retire these RINs or replacement RINs as specified in § 80.1434(a)(9).

(d) *Potential double counting of volumes of biogas or RNG.* (1) When a renewable electricity generator, RERG, or any other party becomes aware of a biogas or RNG producer taking credit for the same volume of biogas or RNG sold to multiple renewable electricity generators, or of a renewable electricity generator taking credit for the same volume of renewable electricity sold to multiple RERGs, they must notify EPA within 5 business days of initial discovery.

(2) The RERG must then calculate any impacts to the number of RINs generated for the volume of impacted renewable electricity. The RERG must then notify EPA and the independent third-party auditor, if any, within 5 business days of initial notification.

(3) For any number of RINs over-generated based off the double counting of volumes of biogas or RNG, the RERG must retire these RINs or replacement RINs as specified in § 80.1434(a)(9).

(e) *Failure to take corrective action.* Any person who fails to meet a requirement under paragraphs (b), (c), or (d) of this section is liable for full performance of such requirement, and each day of non-compliance is deemed a separate violation pursuant to § 80.1460(f). The administrative process for replacement of invalid RINs does not, in any way, limit the ability of the United States to exercise any other authority to bring an enforcement action under section 211 of the Clean Air Act, the fuels regulations under this part, 40 CFR part 1090, or any other applicable law.

(f) *Replacing PIRs or invalid RINs.* The following specifications apply when retiring valid RINs to replace PIRs or invalid RINs:

(1) When a RIN is retired to replace a PIR or invalid RIN, the D code of the retired RIN must be eligible to be used towards meeting all the renewable volume obligations as the PIR or invalid RIN it is replacing, as specified in § 80.1427(a)(2).

(2) The number of RINs retired must be equal to the number of PIRs or invalid RINs being replaced.

(g) *Forms and procedures.* (1) All parties that retire RINs under this section must use forms and procedures specified by EPA.

(2) All parties that must notify EPA under this section must submit those notifications to EPA as specified in 40 CFR 1090.10.

Subpart M—Renewable Fuel Standard

■ 9. Revise § 80.1402 to read as follows:

§ 80.1401 Definitions.

The definitions of § 80.2 apply for the purposes of this Subpart M.

§ 80.1402 [Amended]

■ 10. Amend § 80.1402 by, in paragraph (f), removing the text ''notwithstanding'' and adding, in its place, the text ''regardless of''.

■ 11. Amend § 80.1405 by revising paragraphs (a) and (c) to read as follows:

§ 80.1405 What are the Renewable Fuel Standards?

(a) The values of the renewable fuel standards are as follows:

TABLE 1 TO PARAGRAPH (a)—ANNUAL RENEWABLE FUEL STANDARDS

Year	Cellulosic biofuel standard (%)	Biomass-based diesel standard (%)	Advanced biofuel standard (%)	Renewable fuel standard (%)	Supplemental total renewable fuel standard (%)
2010	0.004	1.10	0.61	8.25	n/a
2011	n/a	0.69	0.78	8.01	n/a
2012	n/a	0.91	1.21	9.23	n/a
2013	0.0005	1.13	1.62	9.74	n/a
2014	0.019	1.41	1.51	9.19	n/a
2015	0.069	1.49	1.62	9.52	n/a
2016	0.128	1.59	2.01	10.10	n/a
2017	0.173	1.67	2.38	10.70	n/a
2018	0.159	1.74	2.37	10.67	n/a
2019	0.230	1.73	2.71	10.97	n/a
2020	0.32	2.30	2.93	10.82	n/a
2021	0.33	2.16	3.00	11.19	n/a
2022	0.35	2.33	3.16	11.59	0.14
2023	0.41	2.54	3.33	11.92	0.14
2024	0.82	2.60	3.80	12.55	n/a
2025	1.23	2.67	4.28	13.05	n/a

* * * * *

(c) EPA will calculate the annual renewable fuel percentage standards using the following equations:

$$Std_{CB,i} = 100 * \frac{RFV_{CB,i}}{(G_i - RG_i) + (GS_i - RGS_i) - GE_i + (D_i - RD_i) + (DS_i - RDS_i) - DE_i}$$

$$Std_{BBD,i} = 100 * \frac{RFV_{BBD,i} \times 1.57}{(G_i - RG_i) + (GS_i - RGS_i) - GE_i + (D_i - RD_i) + (DS_i - RDS_i) - DE_i}$$

$$Std_{AB,i} = 100 * \frac{RFV_{AB,i}}{(G_i - RG_i) + (GS_i - RGS_i) - GE_i + (D_i - RD_i) + (DS_i - RDS_i) - DE_i}$$

$$Std_{RF,i} = 100 * \frac{RFV_{RF,i}}{(G_i - RG_i) + (GS_i - RGS_i) - GE_i + (D_i - RD_i) + (DS_i - RDS_i) - DE_i}$$

Where:

$Std_{CB,i}$ = The cellulosic biofuel standard for year i, in percent.

$Std_{BBD,i}$ = The biomass-based diesel standard for year i, in percent.

$Std_{AB,i}$ = The advanced biofuel standard for year i, in percent.

$Std_{RF,i}$ = The renewable fuel standard for year i, in percent.

$RFV_{CB,i}$ = Annual volume of cellulosic biofuel required by 42 U.S.C. 7545(o)(2)(B) for year i, or volume as adjusted pursuant to 42 U.S.C. 7545(o)(7)(D), in gallons.

$RFV_{BBD,i}$ = Annual volume of biomass-based diesel required by 42 U.S.C. 7545 (o)(2)(B) for year i, in gallons.

$RFV_{AB,i}$ = Annual volume of advanced biofuel required by 42 U.S.C. 7545(o)(2)(B) for year i, in gallons.

$RFV_{RF,i}$ = Annual volume of renewable fuel required by 42 U.S.C. 7545(o)(2)(B) for year i, in gallons.

G_i = Amount of gasoline projected to be used in the covered location, in year i, in gallons.

D_i = Amount of diesel projected to be used in the covered location, in year i, in gallons.

RG_i = Amount of renewable fuel blended into gasoline that is projected to be consumed in the covered location, in year i, in gallons.

RD_i = Amount of renewable fuel blended into diesel that is projected to be consumed in the covered location, in year i, in gallons.

GS_i = Amount of gasoline projected to be used in Alaska or a U.S. territory, in year i, if the state or territory has opted-in or opts-in, in gallons.

RGS_i = Amount of renewable fuel blended into gasoline that is projected to be consumed in Alaska or a U.S. territory, in year i, if the state or territory opts-in, in gallons.

DS_i = Amount of diesel projected to be used in Alaska or a U.S. territory, in year i, if the state or territory has opted-in or opts-in, in gallons.

RDS_i = Amount of renewable fuel blended into diesel that is projected to be consumed in Alaska or a U.S. territory, in year i, if the state or territory opts-in, in gallons.

GE_i = The total amount of gasoline projected to be exempt in year i, in gallons, per §§ 80.1441 and 80.1442.

DE_i = The total amount of diesel fuel projected to be exempt in year i, in gallons, per §§ 80.1441 and 80.1442.

* * * * *

■ 12. Amend § 80.1406 by:

■ a. Revising the section heading; and

■ b. Removing and reserving paragraph (a).

The revision reads as follows:

§ 80.1406 Obligated party responsibilities.

* * * * *

§ 80.1407 [Amended]

■ 13. Amend § 80.1407 by:

■ a. In paragraphs (a)(1) through (4), removing the text ''48 contiguous states or Hawaii'' wherever it appears and adding, in its place, the text ''covered location'';

■ b. In paragraphs (b) and (d), removing the text ''as defined in'' and adding, in its place, the text ''per'';

■ c. In paragraph (e), removing the text ''*MVNRLM diesel fuel* at § 80.2'' and adding, in its place, the text ''MVNRLM diesel fuel''; and

■ d. In paragraph (f)(5), removing the text ''48 United States and Hawaii'' and adding, in its place, the text ''covered location''.

■ 14. Amend § 80.1415 by:

■ a. In paragraph (b)(2), removing the text ''(mono-alkyl ester)'';

■ b. Revising paragraphs (b)(5) through (7);

■ c. In paragraph (c)(1), revising the definition of ''R'';

■ d. In paragraph (c)(2)(ii), removing the text ''derived'' and adding, in its place, the text ''produced''; and

■ e. In paragraph (c)(5), removing the text ''the Administrator'' and adding, in its place, the text ''EPA''.

The revision reads as follows:

§ 80.1415 How are equivalence values assigned to renewable fuel?

* * * * *

(b) * * *

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

(6)(i) For renewable electricity produced from biogas or RNG, 6.5 kW-hr of electricity shall represent one gallon of renewable fuel with an equivalence value of 1.0.

(ii) For renewable electricity produced from renewable biomass other than biogas or RNG, 22.6 kW-hr of electricity shall represent one gallon of renewable fuel with an equivalence value of 1.0.

(7) For all other renewable fuels, a producer or importer must submit an application to EPA for an equivalence value following the provisions of paragraph (c) of this section. Except for renewable electricity, a producer or importer may also submit an application for an alternative equivalence value pursuant to paragraph (c) of this section if the renewable fuel is listed in this paragraph (b), but the producer or importer has reason to believe that a different equivalence value than that listed in this paragraph (b) is warranted.

(c) * * *

(1) * * *

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. For co-processed fuel, R is equal to 1.0.

* * * * *

§ 80.1416 [Amended]

■ 15. Amend § 80.1416 by:

■ a. In paragraphs (b)(1)(vii) and (b)(2)(vii), removing the text ''The Administrator'' and adding, in its place, the text ''EPA'';

■ b. In paragraph (c)(4), removing the text ''definitions in § 80.1401'' and adding, in its place, the text ''definition''; and

■ c. In paragraph (d), removing the text ''The Administrator'' and adding, in its place, the text ''EPA''.
■ 16. Amend § 80.1426 by:
■ a. Revising paragraph (a)(1) introductory text;
■ b. In paragraph (a)(1)(iv), removing the text ''renewable'';
■ c. Revising paragraphs (a)(4), (b)(1), and (c)(1) and (2);
■ d. Removing and reserving paragraph (c)(3);
■ e. In paragraph (c)(7), removing the text ''§ 80.1401'' and adding, in its place, the text ''§ 80.2'';
■ f. Adding a sentence to the end of paragraph (d)(1) introductory text;
■ g. Revising paragraphs (e)(1) and (f)(1)(i);
■ h. Moving Table 1 to § 80.1426 and Table 2 to § 80.1426 immediately following paragraph (f)(1) to the end of the section;
■ i. In paragraph (f)(2)(ii), removing the text ''Table 1 to this section, or a D code as approved by the Administrator, which'' and adding, in its place, the text ''the approved pathway that'';
■ j. In paragraph (f)(3)(i), removing the text ''Table 1 to this section, or a D code as approved by the Administrator, which'' and adding, in its place, the text ''the approved pathways that'';
■ k. Revising paragraph (f)(3)(v);
■ l. Removing Table 3 to § 80.1426 immediately following paragraph (f)(3)(v);
■ m. Revising paragraph (f)(3)(vi);
■ n. Removing Table 4 to § 80.1426 immediately following paragraph (f)(3)(vi)(A);
■ o. Revising paragraph (f)(4);
■ p. In paragraph (f)(5)(v), removing the text ''biogas-derived fuels'' and adding, in its place, the text ''biogas-derived renewable fuel'';
■ q. In paragraph (f)(5)(vi), removing the text ''Table 1 to this section, or a D code as approved by the Administrator, which'' and adding, in its place, the text ''the approved pathway that'';
■ r. Revising paragraphs (f)(6) introductory text and (f)(7)(i), (f)(7)(v)(A) and (B);
■ s. In paragraph (f)(8)(ii) introductory text, removing the text ''(mono-alkyl esters)'';
■ t. Revising paragraphs (f)(8)(ii)(B), (f)(9)(i) and (ii), (f)(10) through (13), (f)(15), (f)(17), and (g)(1)(i) introductory text;
■ u. In paragraph (g)(1)(iii), removing the text ''48 contiguous states plus Hawaii'' wherever it appears and adding, in its place, the text ''covered location'';
■ v. Revising paragraph (g)(2) introductory text; and
■ w. In paragraphs (g)(3) introductory text, (g)(5)(i) introductory text, (g)(7) introductory text, (g)(7)(i) introductory text, and (g)(10) introductory text, removing the text ''48 contiguous states plus Hawaii'' wherever it appears and adding, in its place, the text ''covered location''.

The revisions and additions read as follows:

§ 80.1426 How are RINs generated and assigned to batches of renewable fuel?

(a) * * *

(1) Renewable fuel producers, importers of renewable fuel, and other parties allowed to generate RINs under this part may only generate RINs to represent renewable fuel if they meet the requirements of paragraphs (b) and (c) of this section and if all of the following occur:

* * * * *

(4) For co-processed fuel, RINs may only be generated for the portion of fuel that is produced from renewable biomass, as calculated under paragraph (f)(4) of this section.

(b) * * *

(1) Except as provided in paragraph (c) of this section, a RIN may only be generated by a renewable fuel producer or importer for a batch of renewable fuel that satisfies the requirements of paragraph (a)(1) of this section if it is produced or imported for use as transportation fuel, heating oil, or jet fuel in the covered location.

* * * * *

(c) * * *

(1) No person may generate RINs for fuel that does not satisfy the requirements of paragraph (a)(1) of this section.

(2) A party must not generate RINs for renewable fuel that is not produced for use in the covered location.

* * * * *

(d) * * *

(1) * * * Biogas producers, RNG producers, and RERGs must use the definition of batch for biogas, RNG, and renewable electricity in §§ 80.105(j), 80.120(j), and 80.110(k), respectively.

* * * * *

(e) * * *

(1) Except as provided in paragraph (g) of this section for delayed RINs, the producer or importer of renewable fuel must assign all RINs generated from a specific batch of renewable fuel to that batch of renewable fuel.

* * * * *

(f) * * *

(1) * * *

(i) D codes must be used in RINs generated by producers or importers of renewable fuel according to approved pathways or as specified in paragraph (f)(6) of this section.

* * * * *

(3) * * *

(v) If a producer produces batches that are comprised of a mixture of fuel types with different equivalence values and different applicable D codes, then separate values for V_{RIN} must be calculated for each category of renewable fuel according to the following formula. All batch-RINs thus generated must be assigned to unique batch identifiers for each portion of the batch with a different D code.

$$V_{RIN,DX} = EV_{DX} * V_{S,DX}$$

Where:

$V_{RIN,DX}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs that must be generated for the portion of the batch with a D code of X.

EV_{DX} = Equivalence value for the portion of the batch with a D code of X, per § 80.1415.

$V_{S,DX}$ = Standardized volume at 60 °F of the portion of the batch that must be assigned a D code of X, in gallons, per paragraph (f)(8) of this section.

(vi)(A) If a producer produces a single type of renewable fuel using two or more different feedstocks that are processed simultaneously, and each batch is comprised of a single type of fuel, then the number of gallon-RINs that must be generated for a batch of renewable fuel and assigned a particular D code must be calculated as follows:

$$V_{RIN,DX} = EV * V_S * \frac{FE_{DX}}{FE_{total}}$$

Where:

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

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, per paragraph (f)(8) of this section.

FE_{DX} = Sum of feedstock energies from all feedstocks whose pathways have been assigned a D code of X, in Btu, per paragraphs (f)(3)(vi)(B) through (D) of this section.

FE_{total} = Sum of feedstock energies from all feedstocks, in Btu, per paragraphs (f)(3)(vi)(B) through (D) of this section.

(B) Except for biogas produced from anaerobic digestion, the feedstock energy value of each feedstock must be calculated as follows:

$$FE_{DX,i} = M_i * (1 - m_i) * CF_i$$

Where:

$FE_{DX,i}$ = The amount of energy from feedstock i that forms energy in the renewable fuel and whose pathway has been assigned a D code of X, in Btu.

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

m_i = Average moisture content of feedstock i, as a mass fraction.

CF_i = Converted fraction in annual average Btu/lb, except as otherwise provided by § 80.1451(b)(1)(ii)(U), representing that portion of feedstock i that is converted to fuel by the producer.

(C) For biogas produced from anaerobic digestion from advanced feedstocks, the feedstock energy value for advanced feedstocks must be calculated as follows:

$FE_{D5} = FE_{BG} - FE_{D3/7}$

Where:

FE_{D5} = Sum of feedstock energies from all feedstocks whose pathways have been assigned a D code of 5, in Btu. If the result of this equation is negative, then FE_5 equals 0.

FE_{BG} = Biogas energy in higher heating value produced by the digester, in Btu, as measured under § 80.165(a).

$FE_{D3/7}$ = Sum of feedstock energies from all feedstocks whose pathways have been assigned a D code of 3 or 7, in Btu, per paragraph (f)(3)(vi)(D) of this section.

(D) For biogas produced from anaerobic digestion from cellulosic feedstocks, the feedstock energy value for each cellulosic feedstock must be calculated as follows:

$FE_{D3/7,i} = M_i * TS_i * VS_i * CF_i$

Where:

$FE_{D3/7,i}$ = The amount of energy from feedstock i that forms energy in the renewable fuel and whose pathway has been assigned a D code of 3 or 7, in Btu.

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

TS_i = Total solids of feedstock i, as a mass fraction, in pounds total solids per pound feedstock, per § 80.165(d), measured on a daily or per-batch basis.

VS_i = Volatile solids of feedstock i, as a mass fraction, in pounds volatile solids per pound total solids, per § 80.165(d), measured on a daily or per-batch basis.

CF_i = Converted fraction in annual average Btu/lb, representing the portion of feedstock i that is converted to biomethane from the cellulosic feedstock by the producer. If the anaerobic digester was operated outside of the applicable operating conditions specified in § 80.1450(b)(1)(xiii)(C)(4) or (5), CF_i for that batch equals 0.

(4) *Co-processed fuel and intermediate.* (i) For a batch of co-processed fuel (excluding biodiesel, RNG, and renewable electricity), the RIN generator must determine the number of gallon-RINs (*i.e.,* V_{RIN}) that may be generated using one of the following approaches:

(A) *Approach A.* (*1*) This approach must only be used for a process that meets all the following requirements:

(*i*) The renewable fuel is produced under approved pathways with a single D code.

(*ii*) The fraction of carbon in the co-processed fuel that originates from renewable biomass does not exceed the fraction of chemical energy in the co-processed fuel that originates from renewable biomass.

(*2*) V_{RIN} must be calculated as follows:

$V_{RIN} = EqV * V_f * R$

Where:

V_{RIN} = RIN volume, in gallons, for use in determining the number of gallon-RINs generated for the batch of renewable fuel.

EqV = Equivalence value of the renewable fuel, per § 80.1415.

V_f = Standardized volume of the batch of co-processed fuel at 60 °F, in gallons, per paragraph (f)(8) of this section.

R = The renewable fraction of the co-processed fuel as measured by a carbon-14 dating test method, per paragraph (f)(9) of this section.

(B) *Approach B.* (*1*) This approach must only be used for a process that meets all the following requirements:

(*i*) The process does not meet the requirements of Approach A in paragraph (f)(4)(i)(A) of this section.

(*ii*) Neither heat nor electricity is converted to chemical energy in the co-processed fuel.

(*iii*) The fraction of chemical energy in the co-processed fuel that comes from renewable biomass is equal to or greater than the fraction of chemical energy in the feedstocks that comes from renewable biomass.

(*iv*) If the renewable fuel produced is eligible to generate both D3/D7 RINs and D4/D5/D6 RINs, the fraction of chemical energy in the co-processed fuel eligible to generate D3/D7 RINs that comes from renewable biomass is equal to or greater than the fraction of chemical energy in the feedstocks qualified to be used to produce renewable fuel eligible to generate D3/D7 RINs that comes from renewable biomass.

(*v*) If the renewable fuel produced is eligible to generate both D4/D5 RINs and D6 RINs, the fraction of chemical energy in the co-processed fuel eligible to generate D4/D5 RINs that comes from renewable biomass is equal to or greater than the fraction of chemical energy in the feedstocks qualified to be used to produce renewable fuel eligible to generate D4/D5 RINs that comes from renewable biomass.

(*2*) V_{RIN} must be calculated as follows:

$V_{RIN,DX} = EqV * V_f * FE_{R,DX}/(FE_R + FE_{NR})$

Where:

$V_{RIN,DX}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs generated for the batch of renewable fuel with D code of X.

EqV = Equivalence value of the renewable fuel, per § 80.1415.

V_f = Standardized volume of the batch of co-processed fuel at 60 °F, in gallons, per paragraph (f)(8) of this section.

$FE_{R,DX}$ = Sum of feedstock energies from renewable biomass (including the renewable portion of a biointermediate) used to make the co-processed fuel that qualify be used to produce renewable fuel with D code of X, in Btu, per paragraph (f)(4)(i)(B)(*3*) of this section.

FE_R = Sum of feedstock energies from all renewable biomass (including the renewable portion of a biointermediate) used to make the co-processed fuel, in Btu, per paragraph (f)(4)(i)(B)(*3*) of this section.

FE_{NR} = Sum of feedstock energies from all non-renewable feedstocks (including the non-renewable portion of a biointermediate) used to make the co-processed fuel, in Btu, per paragraph (f)(4)(i)(B)(*3*).

(*3*) The feedstock energy value for each feedstock must be calculated as follows:

$FE_i = M_i * (1 - m_i) * E_i$

Where:

FE_i = Feedstock energy of feedstock i, in Btu.

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

M_i = Average moisture content of feedstock i, as a mass fraction.

E_i = Energy content of feedstock i, in annual average Btu/lb, per paragraph (f)(7) of this section.

(C) *Approach C.* (*1*) This approach must only be used for a process that meets all the following requirements:

(*i*) The process does not meet the requirements of Approach A or B in paragraphs (f)(4)(i)(A) and (B) of this section.

(*ii*) Heat or electricity is converted to energy in the co-processed fuel.

(*2*) V_{RIN} must be calculated as follows:

$$V_{RIN,DX} = EqV * \frac{E_{RB,DX}}{ED}$$

Where:

$V_{RIN,DX}$ = RIN volume, in gallons, for use in determining the number of gallon-RINs generated for the batch of renewable fuel with D code of X.

EqV = Equivalence value of the renewable fuel, per § 80.1415.

$E_{RB,DX}$ = The chemical energy in the batch of co-processed fuel that came from chemical energy in renewable biomass qualified to be used to produce renewable fuel with D code of X, in Btu, per paragraph (f)(4)(i)(C)(*3*) of this section.

ED = The energy density of the renewable fuel, in Btu per gallon.

(*3*) $E_{RB,DX}$ must be calculated as follows:

$E_{RB,DX} = E_{feedstock,DX} - E_{exo,DX} - E_{other,DX} + E_{endo,DX}$

Where:

$E_{RB,DX}$ = The chemical energy in the batch of co-processed fuel that came from chemical energy in renewable biomass qualified to be used to produce renewable fuel with D code of X, in Btu.

$E_{feedstock,DX}$ = The total chemical energy from renewable biomass qualified to be used to produce renewable fuel with D code of X used to produce the batch of co-processed fuel, in Btu, per paragraph (f)(7) of this section.

$E_{exo,DX}$ = The total chemical energy from renewable biomass qualified to be used to produce renewable fuel with D code of X that is converted to heat during the production of the batch of co-processed fuel, in Btu.

$E_{other,DX}$ = The total chemical energy from renewable biomass qualified to be used to produce renewable fuel with D code of X that is converted to other products and wastes during the production of the batch of co-processed fuel, in Btu.

$E_{endo,DX}$ = The total heat or electricity from renewable biomass qualified to be used to produce renewable fuel with D code of X that is converted to chemical energy in the renewable fuel, other products, and wastes during the production of the batch of co-processed fuel, in Btu. This amount must be proportional to the total amount of heat or electricity that comes from renewable biomass.

(D) *Approach D.* EPA may approve a different approach if the RIN generator demonstrates that the process does not meet the requirements of Approach A, B, or C in paragraphs (f)(4)(i)(A) through (C) of this section, as specified in § 80.1450(b)(1)(xvii)(D).

(ii) For a batch of co-processed intermediate, the biointermediate producer must determine the volume of biointermediate (*i.e.,* V_{bio}) qualified to be used to produce renewable fuel for which RINs may be generated using one of the following approaches:

(A) *Approach A.* (*1*) This approach must only be used for a process that meets all the following requirements:

(*i*) The biointermediate is produced under approved pathways with a single D code.

(*ii*) The fraction of carbon in the co-processed intermediate that originates from renewable biomass does not exceed the fraction of chemical energy in the co-processed intermediate that originates from renewable biomass.

(*2*) V_{bio} must be calculated as follows:

$V_{bio} = V_i * R$

Where:

V_{bio} = Volume of biointermediate, in gallons, qualified to be used to produce renewable fuel for which RINs may be generated.

V_i = Standardized volume of the batch of co-processed intermediate at 60 °F, in gallons, per paragraph (f)(8) of this section.

R = The renewable fraction of the co-processed intermediate as measured by a carbon-14 dating test method, per paragraph (f)(9) of this section.

(B) *Approach B.* (*1*) This approach must only be used for a process that meets all the following requirements:

(*i*) The process does not meet the requirements of Approach A in paragraph (f)(4)(ii)(A) of this section.

(*ii*) Neither heat nor electricity is converted to chemical energy in the co-processed intermediate.

(*iii*) The fraction of chemical energy in the co-processed intermediate that comes from renewable biomass is equal to or greater than the fraction of chemical energy in the feedstocks that comes from renewable biomass.

(*iv*) If the biointermediate produced qualifies to be used to produce renewable fuel eligible to generate both D3/D7 RINs and D4/D5/D6 RINs, the fraction of chemical energy in the co-processed intermediate qualified to be used to produce renewable fuel eligible to generate D3/D7 RINs that comes from renewable biomass is equal to or greater than the fraction of chemical energy in the feedstocks qualified to be used to produce renewable fuel eligible to generate D3/D7 RINs that comes from renewable biomass.

(*v*) If the biointermediate produced qualifies to generate both D4/D5 RINs and D6 RINs, the fraction of chemical energy in the co-processed intermediate qualified to be used to produce renewable fuel eligible to generate D4/D5 RINs that comes from renewable biomass is equal to or greater than the fraction of chemical energy in the feedstocks qualified to be used to produce renewable fuel eligible to generate D4/D5 RINs that comes from renewable biomass.

(*2*) $V_{bio,DX}$ must be calculated as follows:

$V_{bio,DX} = V_i * FE_{R,DX}/(FE_R + FE_{NR})$

Where:

$V_{bio,DX}$ = Volume of biointermediate, in gallons, qualified to be used to produce renewable fuel for which RINs with D code of X may be generated.

V_i = Standardized volume of the batch of co-processed intermediate at 60 °F, in gallons, per paragraph (f)(8) of this section.

$FE_{R,DX}$ = Sum of feedstock energies from renewable biomass used to make the co-processed intermediate that qualify be used to produce renewable fuel with D code of X, in Btu, per paragraph (f)(4)(ii)(B)(*3*) of this section.

FE_R = Sum of feedstock energies from all renewable biomass used to make the co-processed intermediate, in Btu, per paragraph (f)(4)(ii)(B)(*3*) of this section.

FE_{NR} = Sum of feedstock energies from all non-renewable feedstocks used to make the co-processed intermediate, in Btu, per paragraph (f)(4)(ii)(B)(*3*).

(*3*) The feedstock energy value for each feedstock must be calculated as follows:

$FE_i = M_i * (1 - m_i) * E_i$

Where:

FE_i = Feedstock energy of feedstock i, in Btu.

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

m_i = Average moisture content of feedstock i, as a mass fraction.

E_i = Energy content of feedstock i, in annual average Btu/lb, per paragraph (f)(7) of this section.

(C) *Approach C.* (*1*) This approach must only be used for a process that meets all the following requirements:

(*i*) The process does not meet the requirements of Approach A or B in paragraphs (f)(4)(ii)(A) and (B) of this section.

(*ii*) Heat or electricity is converted to energy in the co-processed intermediate.

(*2*) $V_{bio,DX}$ must be calculated as follows:

$$V_{bio,DX} = \frac{E_{RB,DX}}{ED}$$

Where:

$V_{bio,DX}$ = Volume of biointermediate, in gallons, qualified to be used to produce renewable fuel for which RINs with D code of X may be generated.

$E_{RB,DX}$ = The chemical energy in the batch of co-processed intermediate that came from chemical energy in renewable biomass qualified to be used to produce renewable fuel with D code of X, in Btu, per paragraph (f)(4)(ii)(C)(*3*) of this section.

ED = The energy density of the biointermediate, in Btu per gallon.

(*3*) $E_{RB,DX}$ must be calculated as follows:

$E_{RB,DX} = E_{feedstock,DX} - E_{exo,DX} - E_{other,DX} + E_{endo,DX}$

Where:

$E_{RB,DX}$ = The chemical energy in the batch of co-processed intermediate that came from chemical energy in renewable biomass qualified to be used to produce renewable fuel with D code of X, in Btu.

$E_{feedstock,DX}$ = The total chemical energy from renewable biomass qualified to be used to produce renewable fuel with D code of X used to produce the batch of co-processed intermediate, in Btu, per paragraph (f)(7) of this section.

$E_{exo,DX}$ = The total chemical energy from renewable biomass qualified to be used to produce renewable fuel with D code of X that is converted to heat during the production of the batch of co-processed intermediate, in Btu.

$E_{other,DX}$ = The total chemical energy from renewable biomass qualified to be used to produce renewable fuel with D code of X that is converted to other products and wastes during the production of the batch of co-processed intermediate, in Btu.

$E_{endo,DX}$ = The total heat or electricity from renewable biomass qualified to be used to produce renewable fuel with D code of X that is converted to chemical energy in the renewable fuel, other products, and wastes during the production of the batch of co-processed intermediate, in

Btu. This amount must be proportional to the total amount of heat or electricity that comes from renewable biomass.

(D) *Approach D.* EPA may approve a different approach if the biointermediate producer demonstrates that the process does not meet the requirements of Approach A, B, or C in paragraphs (f)(4)(ii)(A) through (C) of this section, as specified in § 80.1450(b)(1)(xvii)(D).

* * * * *

(6) *Renewable fuel not covered by an approved pathway.* If no approved pathway applies to a producer's operations, the party may generate RINs if the fuel from its facility is produced from renewable biomass and qualifies for an exemption under § 80.1403 from the requirement that renewable fuel achieve at least a 20 percent reduction in lifecycle greenhouse gas emissions compared to baseline lifecycle greenhouse gas emissions.

* * * * *

(7) * * *

(i) For purposes of paragraphs (f)(3)(vi), (f)(4)(i)(B), and (f)(4)(ii)(B) of this section, producers must specify the value for E, the energy content of the feedstock components, used in the calculation of the feedstock energy value FE.

* * * * *

(v) * * *

(A) ASTM E870 or ASTM E711 for gross calorific value (both incorporated by reference, see § 80.3).

(B) ASTM D4442 or ASTM D4444 for moisture content (both incorporated by reference, see § 80.3).

* * * * *

(8) * * *

(ii) * * *

(B) The standardized volume of biodiesel at 60 °F, in gallons, as calculated from the use of the American Petroleum Institute Refined Products Table 6B, as referenced in ASTM D1250 (incorporated by reference, see § 80.3).

(9) * * *

(i) Parties required under this part to use a radiocarbon dating test method for determination of the renewable fraction of a co-processed fuel or intermediate must use one of the following methods:

(A) Method B of ASTM D6866 (incorporated by reference, see § 80.3).

(B) If the renewable content of the co-processed fuel or intermediate is 10% or greater, Method C of ASTM D6866.

(C) An alternative test method as approved by EPA that meets all the following requirements:

(*1*) The laboratory meets the requirements related to usage of enriched C–14, as specified in Section 1.4 of ASTM D6866.

(*2*) The result is rounded according to Section 13.4 of ASTM D6866.

(*3*) The uncertainty of the method is less than 0.5%.

(ii) Any party required to test for carbon-14 under this subpart must keep representative samples for at least 30 days after testing is complete.

(A) For liquid samples, at least 330 ml must be retained.

(B) For gaseous samples, at least one gallon at standard temperature and pressure must be retained.

* * * * *

(10) RINs for renewable CNG/LNG produced from biogas that is only distributed via a closed, private, non-commercial system may only be generated if all the following requirements are met:

(i) The renewable CNG/LNG was produced from renewable biomass and qualifies to generate RINs under an approved pathway.

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

(iii) The renewable CNG/LNG was used as transportation fuel and for no other purpose.

(iv) The biogas was introduced into the closed, private, non-commercial system no later than December 31, 2023, and the renewable CNG/LNG was used as transportation fuel no later than December 31, 2024.

(11)(i) RINs for renewable CNG/LNG produced from RNG that is introduced into a commercial distribution system may only be generated if all the following requirements are met:

(A) The renewable CNG/LNG was produced from renewable biomass and qualifies to generate RINs under an approved pathway.

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

(C) The renewable CNG/LNG was used as transportation fuel and for no other purpose.

(D) The RNG was injected into and withdrawn from the same commercial distribution system.

(E) The RNG was withdrawn from the commercial distribution system in a manner and at a time consistent with the transport of the RNG between the injection and withdrawal points.

(F) The volume of RNG injected into the commercial distribution system and the volume of RNG withdrawn were continuously measured under § 80.165.

(G) The volume of renewable CNG/LNG sold for use as transportation fuel corresponds to the volume of RNG that was injected into and withdrawn from the commercial distribution system.

(H) No other party relied upon the volume of biogas, RNG, or renewable CNG/LNG for the generation of RINs.

(I) The RNG was introduced into the commercial distribution system no later than December 31, 2023, and the renewable CNG/LNG was used as transportation fuel no later than December 31, 2024.

(ii) On or after January 1, 2024, RINs may only be generated for RNG introduced into a natural gas commercial pipeline system for use as transportation fuel as specified in subpart E of this part.

(iii) If non-renewable components are blended into biogas or RNG, RINs may only be generated on the biomethane content of the biogas or RNG prior to blending.

(12) For purposes of Table 1 of this section, process heat produced from combustion of biogas or RNG at a renewable fuel production facility is considered produced from renewable biomass if all the following requirements are met, as applicable:

(i) For biogas transported to the renewable fuel production facility via a biogas closed distribution system:

(A) The renewable fuel producer has entered into a written contract for the procurement of a specific volume of biogas with a specific heat content.

(B) The volume of biogas was sold to the renewable fuel production facility, and to no other facility.

(C) The volume of biogas injected into the commercial distribution system and the volume of biogas used as process heat were continuously measured under § 80.165.

(ii) For RNG injected into a commercial distribution system on or before December 31, 2023:

(A) The producer has entered into a written contract for the procurement of a specific volume of RNG with a specific heat content.

(B) The volume of RNG was sold to the renewable fuel production facility, and to no other facility.

(C) The volume of RNG was withdrawn from the commercial distribution system in a manner and at a time consistent with the transport of RNG between the injection and withdrawal points.

(D) The volume of RNG injected into the commercial distribution system and the volume of RNG withdrawn were continuously measured under § 80.165.

(E) The commercial distribution system into which the RNG was injected ultimately serves the renewable fuel production facility.

(iii) Process heat produced from combustion of biogas or RNG is not considered produced from renewable biomass if any other party relied upon the volume of biogas or RNG for the generation of RINs.

(iv) For RNG used as process heat on or after January 1, 2024, the renewable fuel producer must retire RINs for RNG as specified in § 80.140.

(13) In order for a renewable fuel production facility to satisfy the requirements of the advanced biofuel grain sorghum pathway, all the following requirements must be met:

(i) The quantity of electricity used at the site that is purchased from the electricity distribution system must be continuously measured and recorded.

(ii) All electricity used on-site that is not purchased from the electricity distribution system must be produced on-site from biogas from landfills or waste digesters.

(iii) For biogas transported to the renewable fuel production facility via a biogas closed distribution system, the requirements in paragraph (f)(12)(i) of this section must be met.

(iv) For RNG injected into a commercial distribution system on or before December 31, 2023, the requirements in paragraph (f)(12)(ii) of this section must be met. For RNG injected into a natural gas commercial pipeline system on or after January 1, 2024, the renewable fuel producer must retire RINs for RNG as specified in § 80.140.

(v) The biogas or RNG used at the renewable fuel production facility is not considered produced from renewable biomass if any other party relied upon the volume of biogas or RNG for the generation of RINs.

* * * * *

(15) *Application of formulas in paragraph (f)(3)(vi) of this section to certain producers generating D3 or D7 RINs.* If a producer seeking to generate D code 3 or 7 RINs produces a single type of renewable fuel using two or more feedstocks or biointermediates converted simultaneously, and at least one of the feedstocks or biointermediates does not have a minimum 75% average adjusted cellulosic content, one of the following additional requirements apply:

(i) 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).

(ii) 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) or (C), and reporting requirements under § 80.1451(b)(1)(ii)(U), as applicable.

* * * * *

(17) *Qualifying use demonstration for certain renewable fuels.* For purposes of this section, any renewable fuel other than ethanol, biodiesel, renewable electricity, renewable gasoline, or renewable diesel that meets the Grade No. 1–D or No. 2–D specification in ASTM D975 (incorporated by reference, see § 80.3) is considered renewable fuel and the producer or importer may generate RINs for such fuel only if all of the following apply:

(i) The fuel is produced from renewable biomass and qualifies to generate RINs under an approved pathway.

(ii) The fuel producer or importer maintains records demonstrating that the fuel was produced for use as a transportation fuel, heating oil or jet fuel by any of the following:

(A) Blending the renewable fuel into gasoline or distillate fuel to produce a transportation fuel, heating oil, or jet fuel that meets all applicable standards under this part and 40 CFR part 1090.

(B) Entering into a written contract for the sale of the renewable fuel, which specifies the purchasing party must blend the fuel into gasoline or distillate fuel to produce a transportation fuel, heating oil, or jet fuel that meets all applicable standards under this part and 40 CFR part 1090.

(C) Entering into a written contract for the sale of the renewable fuel, which specifies that the fuel must be used in its neat form as a transportation fuel, heating oil or jet fuel that meets all applicable standards.

(ii) The fuel was sold for use in or as a transportation fuel, heating oil, or jet fuel, and for no other purpose.

(g) * * *

(1) * * *

(i) The renewable fuel volumes can be described by a new approved pathway that was added after July 1, 2010.

* * * * *

(2) When a new approved pathway is added, EPA will specify in its approval action the effective date on which the new pathway becomes valid for the generation of RINs and whether the fuel in question meets the requirements of paragraph (g)(1)(ii) of this section.

* * * * *

§ 80.1427 [Amended]

■ 17. Amend § 80.1427 by, in paragraph (a)(1) introductory text, removing the text ''under § 80.1406''.

■ 18. Amend § 80.1428 by revising paragraphs (a)(2) through (4) and (a)(5)(i) to read as follows:

§ 80.1428 General requirements for RIN distribution.

(a) * * *

(2) Except as provided in §§ 80.1429 and 80.140(d), no person can separate a RIN that has been assigned to a volume of renewable fuel or RNG pursuant to § 80.1426(e).

(3) An assigned RIN cannot be transferred to another person without simultaneously transferring a volume of renewable fuel or RNG to that same person.

(4) Assigned gallon-RINs with a K code of 1 can be transferred to another person based on the following:

(i) On or before December 31, 2023, for purposes of this section, no more than 2.5 assigned gallon-RINs with a K code of 1 can be transferred to another person with every gallon of renewable fuel transferred to that same person. For RNG, the transferer of assigned RINs with RNG must transfer RINs under § 80.140(c).

(ii) On or after January 1, 2024, for purposes of this section, the transferee must transfer assigned gallon-RINs equal to the equivalence value multiplied by the quantity of the renewable fuel or RNG transferred to the transferor.

(5)(i) On or before December 31, 2023, for purposes of this section, on each of the dates listed in paragraph (a)(5)(ii) of this section in any calendar year, the following equation must be satisfied for assigned RINs and volumes of renewable fuel owned by a person:

$$RIN_d \leq V_d * 2.5$$

Where:

RIN_d = Total number of assigned gallon-RINs with a K code of 1 that are owned on date d.

V_d = Total volume of renewable fuel owned on date d, standardized to 60 °F, in gallons.

* * * * *

■ 19. Amend § 80.1429 by:

■ a. Revising paragraphs (b)(1) through (3);

■ b. Adding paragraph (b)(4)(iii); and

■ c. Revising paragraphs (b)(5) and (6) introductory text.

The revisions and addition read as follows:

§ 80.1429 Requirements for separating RINs from volumes of renewable fuel.

* * * * *

(b) * * *

(1) Except as provided in paragraphs (b)(7) and (9) of this section and § 80.140(d)(2), an obligated party must separate any RINs that have been assigned to a volume of renewable fuel if that party owns that volume.

(2) Except as provided in paragraph (b)(6) of this section, any party that owns a volume of renewable fuel must separate any RINs that have been assigned to that volume once the volume is blended with gasoline or fossil-based diesel to produce a transportation fuel, heating oil, or jet fuel.

(i) On or before December 31, 2023, a party may separate up to 2.5 RINs per gallon of blended renewable fuel.

(ii) On or after January 1, 2024, a party must separate RINs in the amount equal to the equivalence value multiplied by the quantity of the renewable fuel or RNG of the gallon-RINs with a K code of 1.

(3) Any exporter of renewable fuel must separate any RINs that have been assigned to the exported renewable fuel volume.

(i) On or before December 31, 2023, an exporter of renewable fuel may separate up to 2.5 RINs per gallon of exported renewable fuel.

(ii) On or after January 1, 2024, an exporter of renewable fuel must separate RINs in the amount equal to the equivalence value multiplied by the quantity of the renewable fuel or RNG of the gallon-RINs with a K code of 1.

(4) * * *

(iii) Renewable fuel producers of biodiesel may not separate RINs under paragraph (b)(4)(i) of this section.

(5)(i) Any party that generates RINs for a batch of renewable electricity under § 80.135 must separate any RINs that have been assigned to that batch.

(ii) Any party that generates RINs for a batch of renewable CNG/LNG must separate any RINs that have been assigned to that batch if the party demonstrates that the renewable CNG/LNG was used as transportation fuel.

(iii) Only a party that demonstrates that RNG was used as a biogas-derived renewable fuel under § 80.140(d)(1) may separate the RINs that have been assigned to the RNG.

(6) RINs assigned to a volume of biodiesel can only be separated from that volume pursuant to paragraph (b)(2) of this section if such biodiesel is blended into diesel fuel at a concentration of 20 volume percent biodiesel or less.

* * * * *

§ 80.1430 [Amended]

■ 20. Amend § 80.1430 by, in paragraph (e)(2), removing the text ''§ 80.1468'' and adding, in its place, the text ''§ 80.3''.

■ 21. Amend § 80.1431 by:

■ a. Revising paragraphs (a)(1)(vi) and (viii);

■ b. Adding paragraphs (a)(1)(x) and (a)(4);

■ c. Revising paragraphs (b) introductory text and (c) introductory text; and

■ d. In paragraph (c)(7)(ii)(P), removing the text ''the Administrator'' and adding, in its place, the text ''that EPA''.

The revisions and additions read as follows:

§ 80.1431 Treatment of invalid RINs.

(a) * * *

(1) * * *

(vi) Does not meet the definition of renewable fuel.

* * * * *

(viii) Was generated for fuel that was not used in the covered location.

* * * * *

(x) Was inappropriately separated under § 80.140.

* * * * *

(4) If any RIN generated for a batch of renewable fuel that had RINs apportioned through § 80.1426(f)(3) is invalid, then all RINs generated for that batch of renewable fuel are deemed invalid, unless EPA in its sole discretion determines that some portion of those RINs are valid.

(b) Except as provided in paragraph (c) of this section and § 80.1473, the following provisions apply in the case of RINs that are invalid:

* * * * *

(c) Improperly generated RINs may be used for compliance provided that all of the following conditions and requirements are satisfied and the renewable fuel producer or importer who improperly generated the RINs demonstrates that the conditions and requirements are satisfied through the reporting and recordkeeping requirements set forth below, that:

* * * * *

■ 22. Amend § 80.1434 by:

■ a. Revising paragraphs (a)(1) and (5); and

■ b. Redesignating paragraph (a)(11) as paragraph (a)(13) and adding new paragraphs (a)(11) and (12).

The revisions and additions read as follows:

§ 80.1434 RIN retirement.

(a) * * *

(1) *Demonstrate annual compliance.* Except as specified in paragraph (b) of this section or § 80.1456, an obligated party required to meet the RVO under § 80.1407 must retire a sufficient number of RINs to demonstrate compliance with an applicable RVO.

* * * * *

(5) *Spillage, leakage, or disposal of renewable fuels.* Except as provided in § 80.1432(c), in the event that a reported spillage, leakage, or disposal of any volume of renewable fuel, the owner of the renewable fuel must notify any holder or holders of the attached RINs and retire a number of gallon-RINs corresponding to the volume of spilled or disposed of renewable fuel multiplied by its equivalence value in accordance with § 80.1432(b).

* * * * *

(11) *Used to produce other renewable fuel.* Any party that uses renewable fuel or RNG to produce other renewable fuel must retire any assigned RINs for the volume of the renewable fuel or RNG.

(12) *Expired RINs for RNG.* Any party owning RINs assigned to RNG as specified in § 80.140(e) must retire the assigned RIN.

* * * * *

§ 80.1435 [Amended]

■ 23. Amend § 80.1435 by:

■ a. In paragraphs (b)(1)(i) and (ii) and (b)(2)(i) through (iv), removing the text ''RIN-gallons'' wherever it appears and adding, in its place, the text ''gallon-RINs''; and

■ b. In paragraph (b)(2)(iii), removing the text ''48 contiguous states or Hawaii'' wherever it appears and adding, in its place, the text ''covered location''.

■ 24. Amend § 80.1441 by:

■ a. Revising paragraph (a)(1);

■ b. Removing and reserving paragraph (a)(3);

■ c. Removing paragraph (b)(3);

■ d. In paragraph (e)(1) and (2) introductory text, removing the text ''the Administrator'' and adding, in its place, the text ''EPA'';

■ e. In paragraph (e)(2)(ii), removing the text ''The Administrator'' and adding, in its place, the text ''EPA''.

■ f. In paragraph (e)(2)(iii), removing the text ''§ 80.1401'' wherever it appears and adding, in its place, the text ''§ 80.2''; and

■ g. In paragraph (g), removing the text ''defined under'' and adding, in its place, the text ''specified in''.

The revision read as follows:

§ 80.1441 Small refinery exemption.

(a)(1) Transportation fuel produced at a refinery by a refiner is exempt from January 1, 2010, through December 31, 2010, from the renewable fuel standards of § 80.1405, and the owner or operator of the refinery is exempt from the requirements that apply to obligated

parties under this subpart M for fuel produced at the refinery if the refinery meets the definition of ''small refinery'' in § 80.2 for calendar year 2006.

* * * * *

■ 25. Amend § 80.1442 by:

■ a. Removing and reserving paragraph (a)(2);

■ b. Removing paragraphs (b)(4) and (5); and

■ c. Revising paragraph (c)(1).

The revision reads as follows

§ 80.1442 What are the provisions for small refiners under the RFS program?

* * * * *

(c) * * *

(1) Transportation fuel produced by a small refiner pursuant to paragraph (b)(1) of this section is exempt from January 1, 2010, through December 31, 2010, from the renewable fuel standards of § 80.1405 and the requirements that apply to obligated parties under this subpart if the refiner meets all the criteria of paragraph (a)(1) of this section.

* * * * *

§ 80.1443 [Amended]

■ 26. Amend § 80.1443 by:

■ a. In paragraphs (a), (b), and (e) introductory text, removing the text ''the Administrator'' and adding, in its place, the text ''EPA''; and

■ b. In paragraph (e)(2), removing the text ''as defined in § 80.1406''.

§ 80.1449 [Amended]

■ 27. Amend § 80.1449 by, in paragraph (e), removing the text ''the Administrator'' and adding, in its place, the text ''EPA''.

■ 28. Amend § 80.1450 by:

■ a. Revising the first sentence of paragraph (a);

■ b. Revising paragraphs (b)(1) introductory text and (b)(1)(ii);

■ c. In paragraph (b)(1)(v) introductory text, removing the text ''as defined in § 80.1401'';

■ d. Revising paragraph (b)(1)(v)(D);

■ e. In paragraph (b)(1)(v)(E) removing the text ''the Administrator'' and adding, in its place, the text ''EPA''.

■ f. In paragraph (b)(1)(vi), removing the text ''defined' and adding, in its place, the text ''specified'';

■ g. Adding paragraph (b)(1)(viii)(E);

■ h. In paragraphs (b)(1)(xi) introductory text, (b)(1)(xi)(A), and (B), removing the text ''§ 80.1401'' and adding, in its place, the text ''§ 80.2'';

■ i. In paragraph (b)(1)(xii) introductory text, removing the text ''§ 80.1468'' and adding, in its place, the text ''§ 80.3'';

■ j. Revising paragraphs (b)(1)(xii) introductory text and (b)(1)(xiii)(B) introductory text;

■ k. Adding paragraph (b)(1)(xiii)(C);

■ l. Revising paragraph (b)(1)(xv)(B);

■ m. Adding paragraph (b)(1)(xvii)

■ n. Revising the first sentence of paragraph (b)(2) introductory text and paragraphs (b)(2)(ii) and (iii);

■ o. Redesignating paragraphs (b)(2)(iv) through (vi) as paragraphs (b)(2)(v) through (vii), respectively, and adding a new paragraph (b)(2)(iv);

■ p. Adding paragraphs (b)(2)(viii) and (ix);

■ q. Revising paragraphs (d)(3) introductory text, (d)(3)(ii), and (iii);

■ r. Adding paragraphs (d)(3)(v) and (vi);

■ s. Revising paragraph (g)(10)(ii); and

■ t. In paragraphs (g)(11)(i), (ii), (iii), and (i)(1), removing the text ''The Administrator'' and adding, in its place, the text ''EPA''.

The revisions and additions read as follows:

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

(a) * * * Any obligated party or any exporter of renewable fuel must provide EPA with the information specified for registration under 40 CFR 1090.805, if such information has not already been provided under the provisions of this part. * * *

(b) * * *

(1) A description of the types of renewable fuels, RNG, ethanol, or biointermediates that the producer intends to produce at the facility and that the facility is capable of producing without significant modifications to the existing facility. For each type of renewable fuel, RNG, ethanol, or biointermediate the renewable fuel producer or foreign ethanol producer must also provide all the following:

* * * * *

(ii) A description of the facility's renewable fuel, RNG, ethanol, or biointermediate production processes, including:

* * * * *

(v) * * *

(D) For purposes of this section, for all facilities producing renewable electricity or other renewable fuel from biogas, submit all relevant information in § 80.1426(f)(10) or (11), including all the following:

(*1*) On or before December 31, 2023, for facilities producing renewable CNG/LNG as specified in § 80.1426(f)(10):

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

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

(*2*) On or before December 31, 2023, for facilities producing RNG as specified in § 80.1426(f)(11) or renewable electricity under § 80.1426(f)(10) or (11):

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

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

* * * * *

(viii) * * *

(E) The independent third-party engineer must visit all material recovery facilities as part of the engineering review site visit under § 80.1450(b)(2) and (d)(3), as applicable.

* * * * *

(xii) For a producer or importer of any renewable fuel other than ethanol, biodiesel, renewable gasoline, renewable diesel that meets the Grade No. 1–D or No. 2–D specification in ASTM D975 (incorporated by reference, see § 80.3), biogas, or renewable electricity, all the following:

* * * * *

(xiii) * * *

(B) A renewable fuel producer seeking to generate D code 3 or D code 7 RINs, a foreign ethanol producer seeking to have its product sold as cellulosic biofuel after it is denatured, or a biointermediate producer seeking to have its biointermediate made into cellulosic biofuel, 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, excluding anerobic digestion, or a combination of processes to convert feedstock into renewable fuel or biointermediate, must provide all the following:

* * * * *

(C) A renewable fuel producer seeking to generate D code 3 or D code 7 RINs or a biointermediate producer seeking to

have its biointermediate made into cellulosic biofuel, who intends to produce biogas using two or more feedstocks converted simultaneously in an anaerobic digester, where at least one of the feedstocks does not have a minimum 75% adjusted cellulosic content, must provide items (1) through (4) or specify a value and limited conditions in (5):

(*1*) A cellulosic Converted Fraction (CF) for each cellulosic feedstock that will be used for generating RINs under § 80.1426(f)(3)(vi)(D), in Btu/lb, rounded to the nearest whole number.

(*2*) Data supporting the cellulosic CF from each cellulosic feedstock. Data must be derived from processing of cellulosic feedstock(s) in anaerobic digesters without simultaneous conversion under similar conditions as will be run in the simultaneously converted process. Data must be either from the facility when it was processing solely the feedstock that does has a minimum 75% adjusted cellulosic content or from a representative sample of other representative facilities processing the feedstock that does have a minimum 75% adjusted cellulosic content.

(*3*) A description including any calculations demonstrating how the data were used to determine the cellulosic CF.

(*4*) A list of ranges of processing conditions, including temperature, solids residence time, and hydraulic residence time, for which the cellulosic CF is accurate and for which the facility must maintain to generate RINs and a description of how such processing conditions will be measured by the facility. RINs generated from facilities operating outside of these conditions will be invalid pursuant § 80.1431(a)(1)(ix).

(*5*) Registering parties choosing at least one of the converted fraction values below in lieu of providing data specified in paragraphs (b)(1)(xiii)(C)(1) through (4) of this section must only use biogas from anaerobic digesters that continuously operate above 95 degrees Fahrenheit with hydraulic and solids residence times greater than 20 days. RINs generated from facilities operating outside of the listed conditions will be invalid pursuant § 80.1431(a)(1)(ix).

(*i*) Swine manure: 1,742 Btu/lb.

(*ii*) Bovine manure: 1,869 Btu/lb.

(*iii*) Chicken manure: 2,700 Btu/lb.

(*iv*) Municipal wastewater treatment sludge: 3,131 Btu/lb.

* * * * *

(xv) * * *

(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.

* * * * *

(xvii) A RIN generator or biointermediate producer that generates RINs for a co-processed fuel or produces a co-processed intermediate under § 80.1426(f)(4) must provide all the following information for each facility:

(A) Whether Approach A, B, C, or D will be used to generate RINs.

(B) For Approaches A, B, and C, a description of the process and any supporting data describing how the process meets the applicable requirements of the approach.

(C) For Approach C, all the following information:

(*1*) A description of how the renewable fuel or biointermediate producer will determine the values used in all equations for Approach C, including additional information used to determine those values, and an explanation of why this approach is either accurate or provides a conservative estimate of the amount of renewable fuel produced.

(*2*) A list of the meters or other measurement locations that will be used to determine the values for Approach C, including any methods or standards used for each meter or measurement, and a process flow diagram showing their locations.

(*3*) A list of assumptions underlying the calculation of the values for Approach C and an explanation of why each assumption is accurate or provides a conservative estimate of the amount of renewable fuel produced, including a literature review and testing, as applicable.

(*4*) Any additional supporting information needed to evaluate whether Approach C accurately or conservatively estimates the amount of renewable fuel as requested by EPA.

(D) For Approach D, all the following information:

(*1*) A description and any supporting data describing why the process cannot meet the requirements specified for Approaches A, B, and C.

(*2*) A description of how the renewable fuel or biointermediate producer will determine the volume of renewable fuel produced, including relevant equations, and an explanation of why this approach is either accurate or provides a conservative estimate of the volume of renewable fuel produced.

(*3*) A list of the meters or other measurement locations that will be used to determine the values in paragraph (b)(1)(xvii)(D)(*2*) of this section, including any methods or standards used for each meter or measurement, and a process flow diagram showing their locations.

(*4*) A list of assumptions underlying the calculation of the volume of renewable fuel produced and an explanation of why each assumption is accurate or provides a conservative estimate of the amount of renewable fuel produced, including a literature review and testing, as applicable.

(*5*) Any additional supporting information needed to evaluate whether Approach D accurately or conservatively estimates the amount of renewable fuel as requested by EPA.

(2) An independent third-party engineering review and written report and verification of the information provided pursuant to paragraph (b)(1) of this section and § 80.145, as applicable.

* * *

* * * * *

(ii) The independent third-party engineer and its contractors and subcontractors must meet the independence requirements specified in § 80.1471(b)(1), (2), (4), (5), (7) through (10), (12), and (13).

(iii) The independent third-party engineer must sign, date, and submit to EPA with the written report the following conflict of interest statement: ''I certify that the engineering review and written report required and submitted under 40 CFR 80.1450(b)(2) was conducted and prepared by me, or under my direction or supervision, in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information upon which the engineering review was conducted and the written report is based. I further certify that the engineering review was conducted and this written report was prepared pursuant to the requirements of 40 CFR part 80 and all other applicable auditing, competency, independence, impartiality, and conflict of interest standards and protocols. Based on my personal knowledge and experience, and inquiry of personnel involved, the information submitted herein is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.''

(iv)(A) To verify the accuracy of the information provided in paragraph (b)(1)(ii) of this section, the independent third-party engineer must conduct independent calculations of the throughput rate-limiting step in the production process, take digital photographs of all process units depicted in the process flow diagram

during the site visit, and certify that all process unit connections are in place and functioning based on the site visit.

(B) To verify the accuracy of the information in paragraph (b)(1)(iii) of this section, the independent third-party engineer must obtain independent documentation from parties in contracts with the producer for any co-product sales or disposals.

(C) To verify the accuracy of the information provided in paragraph (b)(1)(iv) of this section, the independent third-party engineer must obtain independent documentation from all process heat fuel suppliers of the process heat fuel supplied to the facility.

(D) To verify the accuracy of the information provided in paragraph (b)(1)(v) of this section, the independent third-party engineer must conduct independent calculations of the Converted Fraction that will be used to generate RINs.

* * * * *

(viii) The independent third-party engineer must provide to EPA documentation demonstrating that a site visit, as specified in paragraph (b)(2) of this section, occurred. Such documentation must include digital photographs with date and geographic coordinates taken during the site visit and a description of what is depicted in the photographs.

(ix) Reports required under paragraph (b)(2) of this section must be electronically submitted directly to EPA by an independent third-party engineer using forms and procedures established by EPA.

* * * * *

(d) * * *

(3) All renewable fuel producers, foreign ethanol producers, and biointermediate producers must update registration information and submit an updated independent third-party engineering review as follows:

* * * * *

(ii) For all renewable fuel producers, foreign ethanol producers, and biointermediate producers registered in any calendar year after 2010, the updated registration information and independent third-party engineering review must be submitted to EPA by January 31 of every third calendar year after the date of the first independent third-party engineering review site visit conducted under paragraph (b)(2) of this section. For example, if a renewable fuel producer arranged for a third-party engineer to conduct the first site-visit on December 15, 2023, the three-year independent third-party engineer review must be submitted by January 31, 2027.

(iii) For all renewable fuel producers, in addition to conducting the engineering review and written report and verification required by paragraph (b)(2) of this section, the updated independent third-party engineering review must include a detailed review of the renewable fuel producer's calculations and assumptions used to determine V_{RIN} of a representative sample of batches of each type of renewable fuel produced since the last registration. The representative sample must be selected in accordance with the sample size guidelines set forth at 40 CFR 1090.1805 and must be selected from batches of renewable fuel produced through at least the second quarter of the calendar year prior to the applicable January 31 deadline.

* * * * *

(v) Independent third-party engineers must conduct on-site visits required under this paragraph of this section no sooner than July 1 of the calendar year prior to the applicable January 31 deadline.

(vi) The site visit must occur when the renewable fuel production facility is producing renewable fuel or when the biointermediate production facility is producing biointermediates.

* * * * *

(g) * * *

(10) * * *

(ii) The independent third-party auditor submits an affidavit affirming that they have only verified RINs and biointermediates using a QAP approved under § 80.1469 and notified all appropriate parties of all potentially invalid RINs as described in § 80.1471(d).

* * * * *

■ 29. Amend § 80.1451 by:

■ a. In paragraph (a) introductory text, removing the text ''described in § 80.1406'' and ''described in § 80.1430'';

■ b. Revising paragraph (a)(1)(iii);

■ c. In paragraph (a)(1)(vi), removing the text ''defined'' and adding, in its place, the text ''specified'';

■ d. Revising paragraphs (a)(1)(viii) and (ix);

■ e. In paragraph (a)(1)(xiii), removing the text ''the Administrator'' and adding, in its place, the text ''EPA'';

■ f. Revising paragraphs (a)(1)(xvi), (xvii), and (xviii);

■ g. In paragraph (b)(1)(ii)(O), removing the text ''as defined in § 80.1401'';

■ h. In paragraph (b)(1)(ii)(T), removing the text ''§ 80.1468'' and adding, in its place, the text ''§ 80.3'';

■ i. Revising paragraph (b)(1)(ii)(U) introductory text;

■ j. Redesignating paragraph (b)(1)(ii)(W) as paragraph (b)(1)(ii)(X) and adding a new paragraph (b)(1)(ii)(W);

■ k. In newly redesignated paragraph (b)(1)(ii)(X), removing the text ''the Administrator'' and adding, in its place, the text ''that EPA'';

■ l. In paragraph (c)(1)(iii)(K), removing the text ''the Administrator'' and adding, in its place, the text ''EPA'';

■ m. In paragraphs (c)(2)(i)(J) and (L), removing the text ''as defined in'' and adding, in its place, the text ''under'';

■ n. In paragraph (c)(2)(i)(R), removing the text ''the Administrator'' and adding, in its place, the text ''EPA'';

■ o. In paragraphs (c)(2)(ii)(D)(*8*) and (*10*), removing the text ''as defined in'' and adding, in its place, the text ''under'';

■ p. Revising paragraph (c)(2)(ii)(D)(*14*);

■ q. In paragraph (c)(2)(ii)(I), removing the text ''the Administrator'' and adding, in its place, the text ''EPA'';

■ r. In paragraph (e) introductory text, remove the text ''as defined in § 80.1401 who'' and adding, in its place, the text ''that'';

■ s. Adding paragraph (f)(4);

■ t. In paragraph (g)(1)(ii)(Q), removing the text ''the Administrator'' and adding, in its place, the text ''that EPA'';

■ u. In paragraphs (g)(2)(xi) and (h)(2), removing the text ''the Administrator'' and adding, in its place, the text ''EPA'';

■ v. In paragraph (j)(1)(xvi), removing the text ''the Administrator'' and adding, in its place, the text ''that EPA''; and

■ w. In paragraph (k), removing the text ''the Administrator'' and adding, in its place, the text ''EPA''.

The revisions and additions read as follows:

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

(a) * * *

(1) * * *

(iii) Whether the refiner is complying on a corporate (aggregate) or facility-by-facility basis.

* * * * *

(viii) The total current-year RINs by category of renewable fuel (*i.e.,* cellulosic biofuel, biomass-based diesel, advanced biofuel, renewable fuel, and cellulosic diesel), retired for compliance.

(ix) The total prior-year RINs by renewable fuel category retired for compliance.

* * * * *

(xvi) The total current-year RINs by category of renewable fuel (*i.e.,* cellulosic biofuel, biomass-based diesel, advanced biofuel, renewable fuel, and cellulosic diesel), retired for compliance

that are invalid as specified in § 80.1431(a).

(xvii) The total prior-year RINs by renewable fuel category retired for compliance that are invalid as specified in § 80.1431(a).

(xviii) A list of all RINs that were retired for compliance in the reporting period and are invalid as specified in § 80.1431(a).

* * * * *

(b) * * *

(1) * * *

(ii) * * *

(U) Producers generating D code 3 or 7 RINs for cellulosic biofuel other than biogas-derived renewable fuel, 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, must report all of the following:

* * * * *

(W) Renewable fuel and biointermediate producers that produce co-processed fuel or intermediate under § 80.1426(f)(4) must report the following information, as applicable:

(*1*) For Approach A, the following information by batch:

(*i*) The standardized volume of the batch of co-processed fuel or intermediate at 60 °F, in gallons.

(*ii*) The renewable fraction of the co-processed fuel or intermediate, as a percentage.

(*iii*) The test method used to measure the renewable fraction under § 80.1426(f)(9).

(*2*) For Approach B, the following information by batch:

(*i*) The standardized volume of the batch of co-processed fuel or intermediate at 60 °F, in gallons.

(*ii*) The mass of each feedstock, in pounds.

(*iii*) The average moisture content of each feedstock, as a mass fraction.

(*iv*) The energy content of each feedstock, in Btu/lb.

(*3*) For Approach C, the following information by batch:

(*i*) The energy density of the renewable fuel or biointermediate, in Btu per gallon.

(*ii*) Each input used to calculate $E_{RB,DX,}$ in Btu.

(*4*) For Approach D, all the information specified at registration to be reported, by batch.

* * * * *

(c) * * *

(2) * * *

(ii) * * *

(D) * * *

(*14*) For compliance periods ending on or before December 31, 2023, the volume of renewable fuel (in gallons) owned at the end of the quarter.

* * * * *

(f) * * *

(4) *Monthly reporting schedule.* Any party required to submit information or reports on a monthly basis must submit such information or reports by the end of the subsequent calendar month.

* * * * *

§ 80.1452 [Amended]

■ 30. Amend § 80.1452 by:

■ a. In paragraph (b)(14), removing the text ''as defined in § 80.1401'';

■ b. In paragraph (b)(18), removing the text ''the Administrator'' and adding, in its place, the text ''that EPA''; and

■ c. In paragraphs (c)(14) and (d), removing the text ''the Administrator'' and adding, in its place, the text ''EPA''.

■ 31. Amend § 80.1453 by:

■ a. Revising paragraph (a) introductory text;

■ b. Adding paragraph (a)(11)(i)(D);

■ c. Revising paragraphs (a)(12) introductory text and (a)(12)(v);

■ d. Adding paragraph (a)(12)(viii);

■ e. In paragraphs (d) and (f)(1)(vi), removing the text ''§ 80.1401'' and adding, in its place, the text ''§ 80.2''; and

■ f. Adding paragraph (f)(1)(vii).

The revisions and additions read as follows:

§ 80.1453 What are the product transfer document (PTD) requirements for the RFS program?

(a) On each occasion when any party transfers ownership of neat or blended renewable fuels or RNG, except when such fuel is dispensed into motor vehicles or nonroad vehicles, engines, or equipment, or separated RINs subject to this subpart, the transferor must provide to the transferee documents that include all of the following information, as applicable:

* * * * *

(11) * * *

(i) * * *

(D) Beginning January 1, 2024, the identifying information for a RIN must also include the assigned equivalence value of the renewable fuel along with the following statement: ''These assigned RINs may only be separated up to the amount of the assigned equivalence value on a per-gallon basis''.

* * * * *

(12) For the transfer of renewable fuel or RNG for which RINs were generated, an accurate and clear statement on the product transfer document of the fuel type from the approved pathway, and designation of the fuel use(s) intended by the transferor, as follows:

* * * * *

(v) Naphtha. ''This volume of neat or blended naphtha is designated and intended for use as transportation fuel or jet fuel in the 48 U.S. contiguous states and Hawaii. This naphtha may only be used as a gasoline blendstock, E85 blendstock, or jet fuel. Any person exporting this fuel is subject to the requirements of 40 CFR 80.1430.''.

* * * * *

(viii) RNG. ''This volume of RNG is designated and intended for transportation use in the 48 U.S. contiguous states and Hawaii or as a feedstock to produce a renewable fuel and may not be used for any other purpose. Any person exporting this fuel is subject to the requirements of 40 CFR 80.1430. Assigned RINs to this volume of RNG must not be separated unless the RNG is used as transportation fuel in the 48 U.S. contiguous states and Hawaii.''

* * * * *

(f) * * *

(1) * * *

(vii) For biogas designated for use as a biointermediate, any applicable PTD requirements under § 80.160.

* * * * *

■ 32. Amend § 80.1454 by:

■ a. In paragraph (a) introductory text, removing the text ''(as described at § 80.1406)'' and ''(as described at § 80.1430)'';

■ b. In paragraph (b) introductory text, removing the text ''as defined in § 80.1401'';

■ c. Revising paragraphs (b)(3)(ix) and (xii);

■ d. In paragraph (b)(8), removing the text ''§ 80.1401'' and adding, in its place, the text ''§ 80.2'';

■ e. In paragraphs (c)(1) introductory text, (c)(1)(iii), and (c)(2) introductory text, removing the text ''(as defined in § 80.1401)'';

■ f. Adding paragraphs (c)(2)(vii) and (c)(3);

■ g. Revising paragraph (d) introductory text;

■ h. Redesignating paragraphs (d)(1) through (4) as paragraphs (d)(2) through (5), respectively, and adding a new paragraph (d)(1);

■ i. In newly redesignated paragraph (d)(2)(ii), removing the text ''(d)(1)(i)'' and adding, in its place, the text ''(d)(2)(i)'';

■ j. In newly redesignated paragraph (d)(4)(ii)(B), removing the text ''(d)(3)(ii)(A)'' and adding, in its place, the text ''(d)(4)(ii)(A)'';

■ k. Revising newly redesignated paragraph (d)(5);

■ l. Adding paragraph (d)(6);
■ m. In paragraphs (h)(3)(iv) and (v), removing the text ''as defined in § 80.1401'';
■ n. Removing paragraphs (h)(6)(vi) and (vii);
■ o. Revising paragraph (j) introductory text;
■ p. In paragraphs (j)(1)(iii) and (j)(2)(iv), removing the text ''the Administrator'' and adding, in its place, the text ''EPA'';
■ q. Revising paragraph (k) introductory text;
■ r. In paragraph (k)(2)(v), removing the text ''the Administrator'' and adding, in its place, the text ''EPA'';
■ s. Revising paragraph (l) introductory text;
■ t. In paragraphs (l)(4) and (m)(11), removing the text ''the Administrator'' and adding, in its place, the text ''EPA'';
■ u. In paragraph (t), removing the text ''the Administrator or the Administrator's authorized representative'' and adding, in its place, the text ''EPA''; and
■ v. In paragraph (v), removing the text ''the Administrator'' and adding, in its place, the text ''EPA''.

The revisions and additions read as follows:

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

* * * * *

(b) * * *

(3) * * *

(ix) All facility-determined values used in the calculations under § 80.1426(f)(4) and the data used to obtain those values.

* * * * *

(xii) For RINs generated for ethanol produced from corn starch at a facility using an approved pathway that requires the use of one or more of the advanced technologies listed in Table 2 to § 80.1426, documentation to demonstrate that employment of the required advanced technology or technologies was conducted in accordance with the specifications in the approved pathway and Table 2 to § 80.1426, including any requirement for application to 90% of the production on a calendar year basis.

* * * * *

(c) * * *

(2) * * *

(vii) For renewable fuel or biointermediate produced from a type of renewable biomass not specified in paragraphs (c)(1)(i) through (vi) of this section, documents from their feedstock supplier certifying that the feedstock qualifies as renewable biomass, describing the feedstock.

(3) Producers of renewable fuel or biointermediate produced from separated yard and food waste, biogenic oils/fats/greases, or separated MSW must comply with either the recordkeeping requirements in paragraph (j) of this section or the alternative recordkeeping requirements in § 80.1479.

(d) *Additional requirements for domestic producers of renewable fuel.* (1) Except as provided in paragraphs (g) and (h) of this section, any domestic producer of renewable fuel that generates RINs for such fuel must keep documents associated with feedstock purchases and transfers that identify where the feedstocks were produced and are sufficient to verify that feedstocks used are renewable biomass if RINs are generated.

* * * * *

(5) Domestic producers of renewable fuel or biointermediates produced from a type of renewable biomass not specified in paragraphs (d)(2) through (4) of this section must have documents from their feedstock supplier certifying that the feedstock qualifies as renewable biomass, describing the feedstock.

(6) Producers of renewable fuel or biointermediate produced from separated yard and food waste, biogenic oils/fats/greases, or separated MSW must comply with either the recordkeeping requirements in paragraph (j) of this section or the alternative recordkeeping requirements in § 80.1479.

* * * * *

(j) *Additional requirements for producers that use separated yard waste, separate food waste, separated MSW, or biogenic waste oils/fats/greases.* Except for parties complying with the alternative recordkeeping requirements in § 80.1479, a renewable fuel or biointermediate producer that produces fuel or biointermediate from separated yard waste, separated food waste, separated MSW, or biogenic waste oils/fats/greases must keep all the following additional records:

* * * * *

(k) *Additional requirements for producers of renewable CNG/LNG, biogas and electricity in pathways involving grain sorghum as feedstock, and renewable fuel that uses process heat from biogas.* (1) *Renewable CNG/LNG.* A renewable fuel producer that generates RINs for renewable CNG/LNG under § 80.1426(f)(10) or (11), or that uses process heat from biogas to produce renewable fuel under § 80.1426(f)(12), must keep all the following additional records:

(i) Documentation recording the sale of renewable CNG/LNG 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, or renewable CNG/LNG from the point of biogas production to the facility which sells or uses the fuel for transportation purposes.

(ii) Documents demonstrating the volume, energy content, and applicable D code of biogas or renewable CNG/LNG 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, energy content, and applicable D code of biogas or renewable CNG/LNG relied upon under § 80.1426(f)(11) or (12), as applicable, that was placed into the commercial distribution system.

(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 or renewable CNG/LNG relied upon under § 80.1426(f)(10) and (11) was used as transportation fuel and for no other purpose. The RIN generator must obtain affidavits, or monitoring system data under this paragraph (k), for each quarter.

(vi) A copy of the biogas producer's Compliance Certification required under Title V of the Clean Air Act.

(vii) Any other records as requested by EPA.

(2) *Biogas and electricity in pathways involving grain sorghum as feedstock.* A renewable fuel producer that produces fuel pursuant to a pathway that uses grain sorghum as a feedstock must keep all of the following additional records, as appropriate:

(i) Contracts and documents memorializing the purchase and sale of biogas and the transfer of biogas from the point of generation to the ethanol production facility.

(ii) If the advanced biofuel pathway is used, documents demonstrating the total kilowatt-hours (kWh) of electricity used from the grid, and the total kWh of grid electricity used on a per gallon of ethanol basis, pursuant to § 80.1426(f)(13).

(iii) Affidavits from the biogas producer used at the facility, and all parties that held title to the biogas, confirming that title and environmental attributes of the biogas relied upon under § 80.1426(f)(13) were used for producing ethanol at the renewable fuel production facility and for no other purpose. The renewable fuel producer

must obtain these affidavits for each quarter.

(iv) The biogas producer's Compliance Certification required under Title V of the Clean Air Act.

(v) Such other records as may be requested by EPA.

(l) *Additional requirements for producers or importers of any renewable fuel other than ethanol, biodiesel, renewable gasoline, renewable diesel, biogas-derived renewable fuel, or renewable electricity.* A renewable fuel producer that generates RINs for any renewable fuel other than ethanol, biodiesel, renewable gasoline, renewable diesel that meets the Grade No. 1–D or No. 2–D specification in ASTM D975 (incorporated by reference, see § 80.3), biogas-derived renewable fuel or renewable electricity shall keep all of the following additional records:

* * * * *

§ 80.1455 [Removed and Reserved]

■ 33. Remove and reserve § 80.1455.

§ 80.1457 [Amended]

■ 34. Amend § 80.1457 by, in paragraph (b)(8), removing the text ''the Administrator'' and adding, in its place, the text ''that EPA''.

■ 35. Add § 80.1458 to read as follows:

§ 80.1458 Storage of renewable fuel and biointermediate prior to registration.

(a) *Applicability.* (1) A renewable fuel producer may store renewable fuel for the generation of RINs prior to EPA acceptance of their registration under § 80.1450(b) if all of the requirements in this section are met.

(2) A biointermediate producer may store biointermediate (including biogas used to produce a biogas-derived renewable fuel) prior to EPA acceptance of their registration under § 80.1450(b) if all of the requirements in this section are met.

(b) *Storage requirements.* In order for a renewable fuel producer or biointermediate producer to store renewable fuel or biointermediate under this section, the producer must do the following:

(1) Produce the stored renewable fuel or stored biointermediate after an independent third-party engineer has conducted an engineering review for the renewable fuel production or biointermediate production facility under § 80.1450(b)(2).

(2) Produce the stored renewable fuel or stored biointermediate in accordance with all applicable requirements under this part.

(3) Make no change to the facility after the independent third-party engineer completed the engineering review.

(4) Store the stored renewable fuel or stored biointermediate at the facility that produced the renewable fuel or biointermediate.

(5) Maintain custody and title to the stored renewable fuel or stored biointermediate until EPA accepts the renewable fuel or biointermediate producer's registration under § 80.1450(b).

(c) *RIN generation.* (1) A RIN generator may only generate RINs for stored renewable fuel or renewable fuel produced from stored biointermediate if the RIN generator generates the RINs under §§ 80.1426 and 80.1452 after EPA activates the registration under § 80.1450(b) and meets all other applicable requirements under this part for RIN generation.

(2) The RIN year of any RINs generated for stored renewable fuel or renewable fuel produced from stored biointermediate is the year that the renewable fuel was produced.

(d) *Limitations.* (1) RNG injected into a commercial distribution system prior to EPA acceptance of a renewable fuel producer's registration under § 80.1450(b) does not meet the requirements of this section and may not be stored.

(2) Renewable electricity produced and placed on a transmission grid prior to EPA activation of a renewable electricity generator's registration under § 80.145 does not meet the requirements of this section and may not be stored.

■ 36. Amend § 80.1460 by:

■ a. In paragraphs (c)(2) and (3), removing the text ''(as defined in § 80.1401)'';

■ b. In paragraph (g), removing the text ''§ 80.1401'' and adding, in its place, the text ''§ 80.2'';

■ c. Revising paragraph (h)(3); and

■ d. Adding paragraph (l).

The revision and addition read as follows:

§ 80.1460 What acts are prohibited under the RFS program?

* * * * *

(h) * * *

(3)(i) On or before December 31, 2023, separate more than 2.5 RINs per gallon of renewable fuel that has a valid qualifying separation event pursuant to § 80.1429.

(ii) On or after January 1, 2024, separate more RINs per gallon than the equivalence value assigned to the renewable fuel that has a valid qualifying separation event pursuant to § 80.1429.

* * * * *

(l) *Independent third-party engineer violations.* No person shall do any of the following:

(1) Fail to identify any incorrect information submitted by any party as specified in § 80.1450(b)(2).

(2) Fail to meet any requirement related to engineering reviews as specified in § 80.1450(b)(2).

(3) Fail to disclose to EPA any financial, professional, business, or other interests with parties for whom the independent third-party engineer provides services under § 80.1450.

(4) Fail to meet any requirement related to the independent third-party engineering review requirements in § 80.1450(b)(2) or (d)(1).

■ 37. Amend § 80.1461 by adding paragraph (f) to read as follows:

§ 80.1461 Who is liable for violations under the RFS program?

* * * * *

(f) *Third-party liability.* Any party allowed under this subpart to conduct sampling and testing on behalf of a regulated party and does so to demonstrate compliance with the requirements of this subpart must meet those requirements in the same way that the regulated party must meet those requirements. The regulated party and the third party are both liable for any violations arising from the third party's failure to meet the requirements of this subpart.

■ 38. Amend § 80.1464 by:

■ a. In the introductory paragraph, removing the text ''§§ 80.1465 and 80.1466'' and adding, in its place, the text ''§ 80.1466'';

■ b. In paragraph (a) introductory text, removing the text ''(as described at § 80.1406(a))'' and ''(as described at § 80.1430)'';

■ c. Revising paragraph (a)(3)(ii);

■ d. In paragraph (b)(1)(iii), removing the text ''a pathway in Table 1 to § 80.1426'' and adding, in its place, the text ''an approved pathway'';

■ e. In paragraph (b)(1)(v)(B), removing the text ''in § 80.1401''; and

■ f. Revising paragraphs (b)(3)(ii) and (c)(3)(ii).

The revisions read as follows:

§ 80.1464 What are the attest engagement requirements under the RFS program?

(a) * * *

(3) * * *

(ii) Obtain the database, spreadsheet, or other documentation used to generate the information in the RIN activity reports; compare the RIN transaction samples reviewed under paragraph (a)(2) of this section with the corresponding entries in the database or spreadsheet and report as a finding any discrepancies; compute the total number of current-year and prior-year RINs owned at the start and end of each

quarter; and state whether this information agrees with the party's reports to EPA.

* * * * *

(b) * * *

(3) * * *

(ii) Obtain the database, spreadsheet, or other documentation used to generate the information in the RIN activity reports; compare the RIN transaction samples reviewed under paragraph (b)(2) of this section with the corresponding entries in the database or spreadsheet and report as a finding any discrepancies; report the total number of each RIN generated during each quarter and compute and report the total number of current-year and prior-year RINs owned at the start and end of each quarter; and state whether this information agrees with the party's reports to EPA.

* * * * *

(c) * * *

(2) * * *

(ii) Obtain the database, spreadsheet, or other documentation used to generate the information in the RIN activity reports; compare the RIN transaction samples reviewed under paragraph (c)(1) of this section with the corresponding entries in the database or spreadsheet and report as a finding any discrepancies; compute the total number of current-year and prior-year RINs owned at the start and end of each quarter; and state whether this information agrees with the party's reports to EPA.

* * * * *

■ 39. Amend § 80.1466 by:

■ a. In paragraph (d)(2)(ii), removing the text ''The Administrator'' and adding, in its place, the text ''EPA'';

■ b. In paragraph (f)(1)(viii), removing the text ''working'' and adding, in its place, the text ''business'';

■ c. Revising paragraphs (h)(1) and (2);

■ d. In paragraph (k)(4)(i), removing the text ''The Administrator'' and adding, in its place, the text ''EPA'';

■ e. In paragraph (o)(1), removing the text ''the Administrator'' wherever it appears and adding, in its place, the text ''EPA''; and

■ f. In paragraph (o)(2)(ii), removing the text ''40 CFR 80.1465'' and adding, in its place, the text ''40 CFR 80.1466''.

The revisions read as follows:

§ 80.1466 What are the additional requirements under this subpart for foreign renewable fuel producers and importers of renewable fuels?

* * * * *

(h) * * *

(1) The RIN-generating foreign producer must post a bond of the amount calculated using the following equation:

Bond = G * $0.30

Where:

Bond = Amount of the bond in U.S. dollars.

G = The greater of: (1) The largest volume of renewable fuel produced by the RIN-generating foreign producer and exported to the United States, in gallons, during a single calendar year among the five preceding calendar years; or (2) The largest volume of renewable fuel that the RIN-generating foreign producers expects to export to the United States during any calendar year identified in the Production Outlook Report required by § 80.1449. If the volume of renewable fuel exported to the United States increases above the largest volume identified in the Production Outlook Report during any calendar year, the RIN-generating foreign producer must increase the bond to cover the shortfall within 90 days.

(2) Bonds must be obtained in the proper amount from a third-party surety agent that is payable to satisfy United States administrative or judicial judgments against the foreign producer, provided EPA agrees in advance as to the third party and the nature of the surety agreement.

* * * * *

■ 40. Amend § 80.1467 by:

■ a. In paragraph (c)(1)(viii), removing the text ''working'' and adding, in its place, the text ''business'';

■ b. Revising paragraphs (e)(1) and (2); and

■ c. In paragraph (j)(1), removing the text ''the Administrator'' wherever it appears and adding, in its place, the text ''EPA''.

The revisions read as follows:

§ 80.1467 What are the additional requirements under this subpart for a foreign RIN owner?

* * * * *

(e) * * *

(1) The foreign entity must post a bond of the amount calculated using the following equation:

Bond = G * $ 0.30

Where:

Bond = Amount of the bond in U.S. dollars.

G = The total of the number of gallon-RINs the foreign entity expects to obtain, sell, transfer, or hold during the first calendar year that the foreign entity is a RIN owner, plus the number of gallon-RINs the foreign entity expects to obtain, sell, transfer, or hold during the next four calendar years. After the first calendar year, the bond amount must be based on the actual number of gallon-RINs obtained, sold, or transferred so far during the current calendar year plus the number of gallon-RINs obtained, sold, or transferred during the four calendar years immediately preceding the current calendar year. For any year for which there were fewer than four preceding years in which the foreign entity obtained, sold, or transferred RINs, the bond must be based on the total of the number of gallon-RINs sold or transferred so far during the current calendar year plus the number of gallon-RINs obtained, sold, or transferred during any immediately preceding calendar years in which the foreign entity owned RINs, plus the number of gallon-RINs the foreign entity expects to obtain, sell or transfer during subsequent calendar years, the total number of years not to exceed four calendar years in addition to the current calendar year.

(2) Bonds must be obtained in the proper amount from a third-party surety agent that is payable to satisfy United States administrative or judicial judgments against the foreign RIN owner, provided EPA agrees in advance as to the third party and the nature of the surety agreement.

* * * * *

§ 80.1468 [Removed and Reserved]

■ 41. Remove and reserve § 80.1468.

■ 42. Amend § 80.1469 by:

■ a. In paragraph (a)(1)(i)(A), removing the text ''as defined in § 80.1401'';

■ b. In paragraphs (a)(1)(i)(F) and (a)(2)(i)(B), removing the text ''as permitted under Table 1 to § 80.1426 or a petition approved through § 80.1416'' and adding, in its place, the text ''from the approved pathway'';

■ c. In paragraph (b)(1)(i), removing the text ''as defined in § 80.1401'';

■ d. In paragraphs (b)(1)(vi) and (b)(2)(ii), removing the text ''as permitted under Table 1 to § 80.1426 or a petition approved through § 80.1416'' and adding, in its place, the text ''from the approved pathway'';

■ e. In paragraph (c)(1)(i), removing the text ''as defined in § 80.1401'';

■ f. Revising paragraphs (c)(4) introductory text;

■ g. In paragraph (c)(4)(i), removing the text ''§ 80.1429(b)(4)'' and adding, in its place, the text ''§ 80.1429(b)'';

■ h. Adding paragraph (c)(6);

■ i. Revising paragraph (d); and

■ j. In paragraph (e)(1), removing the text ''the Administrator'' and adding, in its place, the text ''EPA''.

The addition and revision read as follows:

§ 80.1469 Requirements for Quality Assurance Plans.

* * * * *

(c) * * *

(4) *Other RIN-related components.*

* * * * *

(6) *Documentation.* Independent third-party auditors must review all relevant registration information under

§ 80.1450, reporting information under § 80.1451, and recordkeeping information under § 80.1454, as well as any other relevant information and documentation required under this part, to verify elements in a QAP approved by EPA under this section.

(d) In addition to a general QAP encompassing elements common to all pathways, for each QAP there must be at least one pathway-specific plan for a RIN-generating approved pathway, which must contain elements specific to particular feedstocks, production processes, and fuel types, as applicable.

* * * * *

■ 43. Amend § 80.1471 by:

■ a. Revising paragraph (b) introductory text and (b)(1);

■ b. In paragraph (b)(2), removing the text ''as defined in § 80.1406'';

■ c. Revising paragraphs (b)(4) through (6); and

■ d. Adding paragraphs (b)(8) through (13).

The revisions and additions read as follows:

§ 80.1471 Requirements for QAP auditors.

* * * * *

(b) To be considered an independent third-party auditor under paragraph (a) of this section, all the following conditions must be met:

(1) The independent third-party auditor and its contractors and subcontractors must not be owned or operated by the audited party or any subsidiary or employee of the audited party.

* * * * *

(4) The independent third-party auditor and its contractors and subcontractors must be free from any interest or the appearance of any interest in the audited party's business.

(5) The audited party must be free from any interest or the appearance of any interest in the third-party auditor's business and the businesses of third-party auditor's contractors and subcontractors.

(6) The independent third-party auditor and its contractors and subcontractors must not have performed an attest engagement under § 80.1464 for the audited party in the same calendar year as a QAP audit conducted pursuant to § 80.1472.

* * * * *

(8) The independent third-party auditor and its contractors and subcontractors must act impartially when performing all activities under this section.

(9) The independent third-party auditor and its contractors and subcontractors must be free from any interest in the audited party's business and receive no financial benefit from the outcome of auditing service, apart from payment for the auditing services.

(10) The independent third-party auditor and its contractors and subcontractors must not have conducted past research, development, design, or construction, or consulting regarding such activities for the audited party within the last year. For purposes of this requirement, consulting does not include performing or participating in verification activities pursuant to this section.

(11) The independent third-party auditor and its contractors and subcontractors must not provide other business or consulting services to the audited party, including advice or assistance to implement the findings or recommendations in an audit report, for a period of at least one year following cessation of QAP services for the audited party.

(12) The independent third-party auditor and its contractors and subcontractors must ensure that all personnel involved in the third-party audit (including the verification activities) under this section do not accept future employment with the owner or operator of the audited party for a period of at least 12 months. For purposes of this requirement, employment does not include performing or participating in the third-party audit (including the verification activities) pursuant to § 80.1472.

(13) The independent third-party auditor and its contractors and subcontractors must have written policies and procedures to ensure that the independent third-party auditor and all personnel under the independent third-party auditor's direction or supervision comply with the competency, independence, and impartiality requirements of this section.

* * * * *

§ 80.1473 [Amended]

■ 44. Amend § 80.1473 by, in paragraphs (c)(1), (d)(1), and (e)(1), removing the text ''defined'' and adding, in its place, the text ''specified''.

§ 80.1474 [Amended]

■ 45. Amend § 80.1474 by, in paragraph (g), removing the text ''the Administrator'' and adding, in its place, the text ''EPA''.

§ 80.1478 [Amended]

■ 46. Amend § 80.1478 by, in paragraph (g)(1), removing the text ''the Administrator'' wherever it appears and adding, in its place, the text ''EPA''.

■ 47. Add § 80.1479 to read as follows:

§ 80.1479 Alternative recordkeeping requirements for separated yard waste, separated food waste, separated MSW, and biogenic waste oils/fats/greases.

(a) *Alternative recordkeeping.* In lieu of complying with the recordkeeping requirements in § 80.1454(j), a renewable fuel producer or biointermediate producer that produces renewable fuel or biointermediate from separated yard waste, separated food waste, separated MSW, or biogenic waste oils/fats/greases and uses a third-party feedstock supplier to supply these feedstocks may comply with the alternative recordkeeping requirements of this section.

(b) *Registration of the feedstock supplier.* The feedstock supplier must register under 40 CFR 1090.805.

(c) *QAP participation.* (1) The feedstock supplier and renewable fuel producer must have an approved QAP as specified in § 80.1476(e).

(2) Instead of verifying RINs with a site visit every 200 days as specified in § 80.1471(f)(1)(ii), the independent third-party auditor may verify RINs with a site visit every 380 days.

(d) *PTDs.* PTDs must accompany transfers of separated yard waste, separated food waste, separated MSW, and biogenic waste oils/fats/greases from the point where the feedstock leaves the feedstock supplier's establishment to the point the feedstock is delivered to the renewable fuel production facility, as specified in § 80.1453(f)(1)(i) through (v).

(e) *Recordkeeping.* The feedstock supplier must keep all applicable records for the collection of separated yard waste, separated food waste, separated MSW, and biogenic waste oils/fats/greases as specified in § 80.1454.

(f) *Liability.* The feedstock supplier and renewable fuel producer are liable for violations as specified in § 80.1461(e).

PART 1090—REGULATION OF FUELS, FUEL ADDITIVES, AND REGULATED BLENDSTOCKS

■ 48. The authority citation for part 1090 continues to read as follows:

Authority: 42 U.S.C. 7414, 7521, 7522–7525, 7541, 7542, 7543, 7545, 7547, 7550, and 7601.

Subpart A—General Provisions

■ 49. Amend § 1090.55 by revising paragraph (c) to read as follows:

§ 1090.55 Requirements for independent parties.

* * * * *

(c) *Suspension and disbarment.* Any person suspended or disbarred under 2 CFR part 1532 or 48 CFR part 9, subpart 9.4, is not qualified to perform review functions under this part.

■ 50. Amend § 1090.80 by:

■ a. In the definition of ''PADD'', revising entry II in the table; and

■ b. In the definition of ''Ultra low-sulfur diesel'', removing the text ''Ultra low-sulfur diesel'' and adding, in its place, the text ''Ultra-low-sulfur diesel''.

The revision reads as follows:

§ 1090.80 Definitions.

* * * * *

PADD * * *

PADD	Regional description	State or territory
*	*	*
II	Midwest	Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Tennessee, Wisconsin.
*	*	*

* * * * *

Subpart I—Registration

■ 51. Amend § 1090.805 by revising paragraph (a)(1)(iv) to read as follows:

§ 1090.805 Contents of registration.

(a) * * *

(1) * * *

(iv) Name(s), title(s), telephone number(s), and email address(es) of an RCO and their delegate, if applicable.

* * * * *

Subpart S—Attestation Engagements

§ 1090.1830 [Amended]

■ 52. Amend § 1090.1830 by, in paragraph (a)(3), adding the text ''all'' after the text ''submitted''.

[FR Doc. 2022–26499 Filed 12–29–22; 8:45 am]

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